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Descriptions and color photographs of important fungal sporophores (conks), other indicators of cull (wounds), and associated decays in western Oregon conifers are provided to aid timber markers, cruisers, and scalers in identifying them. Cull factors are given for the indicators by tree species.

Keywords: Cull logs, decay (wood), timber cruising, log scaling, coniferae, western Oregon.

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Introduction

Timber cruisers and scalers must be able to estimate net volumes of standing trees and bucked logs accurately. Accurate inventories are essential to sustained-yield forestry. Forest land is classified, timber is sold, roads are built, and mills are developed from estimates of net volume obtainable from a given acreage of forest land. Serious financial losses can occur when less volume is harvested than cruisers report.

Cruisers and scalers need to recognize indicators of decay and other defects on logs and trees to predict net volumes accurately. Sporophores or conks of decay fungi are the most important indicators of decay in standing trees or logs. Amount of decay associated with conks depends on the species of fungus producing the conk. Fortunately, only a few fungi are responsible for most decay losses in western Oregon conifers.

Decay in trees is caused primarily by two classes of fungi, white rot and brown rot. White-rot fungi produce enzymes that can use all wood components; brown-rot fungi principally decompose cellulose. Wood with incipient (early) white-rot decay can usually be used for pulpwood and lower grade wood products. Wood in any stage of brown-rot decay cannot be used for pulp or lumber.

Indications that conks have been present or are developing are also useful in predicting presence and amount of decay. Pieces of old conks may still be attached or lying at the base of a tree. A hole in the bark may be where a branch has rotted out or where a conk was attached. Punk and swollen knots are produced commonly by some fungi, and these indicators are especially helpful to scalers. Most sporophores growing from the ground have no relation to decay in living trees, but an important exception is red-brown butt rot.¹ Conks of this fungus, reliable indicators of butt rot, are seldom found on living trees, but are commonly found on the ground at the base of trees with butt rot.

Defect Indicators

Two general types of defect indicators are

- Signs of decay fungi, such as fruiting bodies (conks, sporophores) and punky or swollen knots, and
- Injuries or wounds that are potential infection courts for decay fungi, including basal and trunk wounds, frost cracks or seams, rust and dwarf mistletoe bole cankers, and top damage, such as dead and broken tops, forks, and crooks.

Signs of decay fungi, especially conks, usually indicate that decay is present. Whether or not swollen knots, especially those on Douglas-firs and western hemlocks, are of fungal origin is sometimes difficult to determine, however. Decay is not always associated with injuries. Large, old wounds are most likely to be infected with decay fungi, and associated decay columns are also larger. Some types of indicators seldom have associated decay.

Type and age of all kinds of wounds can be used to determine presence and amount of decay in trees. Basal and trunk wounds, frost cracks, and top damage — such as dead or broken tops, forks, and crooks — are often excellent indicators of defect. Some abnormalities commonly seen on trees are seldom, if ever, associated with decay. Burls, closed dwarf mistletoe and rust cankers on the bole, and bark abnormalities not associated with wound callusing are examples. Infrequent or minor indicators of decay include recent (young) or small (less than 1 foot long) basal or trunk wounds, dead vertical branches, and open dwarf mistletoe and rust bole cankers.

The purpose of this paper is to help timber cruisers and scalers identify indicators of cull² and important decays found in the conifer species in western Oregon. Cull factors, if available, will also be given for important indicators on various tree species. Results of numerous studies on decay in Pacific Northwest conifers indicate that decay losses within and among tree species vary considerably from one locality to another and, to an even greater extent, from one region to another. Cull factors for a given tree species should be applied only to that species and only in the locality or area where the cull study was conducted. Because decay is so variable, familiarity with local conditions must be gained by observing cruised timber after it is felled and bucked, by observing decayed logs as they are opened by headsaws, and by comparing cruise estimates with gross and net log scales. The cull rules presented are averages for a tree species and usually are applicable in a limited area. They should be modified only when local knowledge or experience indicate that other cull deductions would be more appropriate.

² Cull includes decay, shake, and frost cracks. Defect, as used in this paper, is synonymous with cull.

¹ Scientific names of all taxa mentioned in

Decay Fungi



Figure 1 — Conk of red ring rot on the trunk of a Douglas-fir.



Figure 2 — Swollen knots caused by red ring rot on the trunk of a Douglas-fir.



Figure 3. — Decay in a Douglas-fir caused by red ring rot.

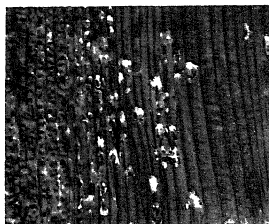


Figure 4. — Close-up of red ring rot decay showing white pockets (white speck).

The first two fungi mentioned are the most commercially important causes of cull; the order in which the others are mentioned has no significance.

Red Ring Rot

Common names

For the decay: Red ring rot, conk rot, white pocket rot, pecky rot, white speckled rot.

For the fungus: Ring-scale fungus.

Hosts: Douglas-fir, larch, pines, hemlock, spruces, cedar, true firs, and Port-Orford-cedar.

Entry: Thought to be dead branches or stubs.

Location: Trunk.

Conks: Perennial, produced at branch stubs and knots, rarely at wounds. Conks bracketlike to hoof shaped, with a brownish-black upper surface having concentric furrowed rings and a brown undersurface.

Rot: A cellulose and lignin-destroying white pocket rot attacking heartwood. Occasionally enters living sapwood. Can be confused with red ray rot, and red root and butt rot.

Early stage: Usually reddish but varies by host species; usually red-purple in Douglas-fir, light purplish-gray in spruce, pink to reddish in pines, colorless in cedar.

Late stage: Few to many spindle-shaped, white pockets with firm wood between. Pockets may run together; sometimes black zone lines are produced. Late stage may be distributed uniformly, may be in rings, or in crescent-shaped segments of rings.

Key identifying features:

- Swollen knots on logs;
- Punk knots on logs;
- White pockets in rot;
- Conks (when present);
- Rot column in rings or crescent-shaped segments of rings; and
- Conks on ground at base of tree.

Cull rules:

Tables 1 and 2 give cruising cull rules for Douglas-fir, western hemlock, and western white pine. Information helpful for modifying the cull deductions is:

- Conk rot is usually more severe:
 - From north to south in Oregon;
 - In older stands;
 - In pure stands than in mixed;
 - On steep slopes than on gentle;
 - On shallow than deep soils; and
 - On sites predominated by secondary vegetation — vine maple, vanilla leaf, oxalis, or rose, rather than salal, twinflower, or rhododendron.

- Conks are higher on trees in older stands.

- The larger the conk, the more related decay — unless the small conks are remnants of large conks that have fallen off.

Table 1 — Cruising cull rules for red ring rot in Douglas-fir, western hemlock, and western white pine

Tree and age	Visible indicator	Deduction
Douglas-fir		
Under 125 years	Conk	Degrade, but no cull
Over 125 years	Conk	See table 2
	Swollen knots	See table 2
Old-growth western hemlock, true firs (over 125 years)	Conks	Cull 16 feet for single conk; 16 feet above and below for group of conks
	Swollen knots	Cull 1/2 the distance figured for conks
Western white pine	Conks	Cull 2 feet above and 4 feet below each conk

Table 2 — Conk deduction in feet above the highest or below the lowest conk for Douglas-firs

Tree age	Conks		Swollen Knots	
	Below lowest	Above highest	Below lowest	Above highest
Years				
150	4	4	2	2
200	10	10	5	5
250	13	13	7	7
300	18	18	9	9
350	22	22	11	11

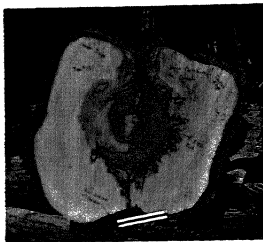


Figure 5 — Cross section from a white fir showing conks, cankers, and decay of red ring rot (var. *cancriformans*).



Figure 6 — Red ring rot (var. *cancriformans*): conks on cankered area of a white fir

Red Ring Rot (var. *cancriformans*)

Common names:

For the decay: Red ring rot, conk rot, white pocket rot, pecky rot.

For the fungus: Butterfly conk, ring-scale fungus.

Hosts: Grand fir, white fir, California red fir, noble fir, Pacific silver fir, subalpine fir.

Entry: Thought to be dead branches and stubs.

Location: Butt and trunk.

Conks: Conks appear annual but are actually perennial, produced profusely over the surface of cankered areas, usually at the butt of tree rather than at branch stubs and whorls. Bracketlike, with rough upper surface and furrows, 1/2 to more than 3 inches wide. Dull grayish or brownish. In growing conks, lower margin velvety, light golden brown.

Rot: A cellulose- and lignin-destroying white pocket rot attacking sapwood and heartwood, often killing the cambium which causes cankered areas.

Early stage: Light yellow to light brown.

Late stage: Few to many spindle-shaped pockets with firm wood between. Pockets may run together and may be filled with white, yellow, brown material. Late stage may be uniformly distributed, may be in ring or in crescent-shaped segments of rings.

Key identifying features:

- Sunken cankered areas;
- Conks (when present) scattered profusely over cankered areas;
- No swollen knots present; and
- Rot column in rings or crescent-shaped segments of rings.

Cull rules:

For white or red fir in southwestern Oregon, deduct 4 feet below the bottom of the lowest canker or conk and 6 feet above the top of the highest



Figure 7. — Cross sections from a white fir showing Indian paint fungus conks and decay.

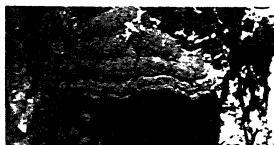


Figure 8. — Indian paint fungus conk on a grand fir.



Figure 9. — Felled white fir that split, showing stringy nature of decay from rust-red stringy rot.

Rust-Red Stringy Rot

Common names:

For the decay: Rust-red stringy rot, brown stringy rot.

For the fungus: Indian paint fungus.

Hosts: True firs and hemlocks, rare in other conifers.

Entry: Dead twigs less than 2 millimeters in diameter.

Location: Trunk.

Conks: Perennial conks hoof shaped, hard and woody; upper surface rough, black, furrowed, and cracked; lower surface covered with coarse, hard grayish spines (teeth). Interior brilliant rust red and brick red. Conks may be confused with those of red ring rot at a distance.

Rot: A brown, stringy rot causing heartwood decomposition of lignin and, to a lesser extent, cellulose. Rot column frequently extensive.

Hidden stage: Wood can be affected seriously before discoloration or texture change is evident. Spring wood is weakened so that it separates during seasoning, producing the defect known as ring shake. Hidden stage may extend up to 5 feet beyond evidence.

Early stage: Softening of wood with a light yellow to brown or water-soaked stain, gradually deepening to pale reddish-brown. Fine rusty-red or even blackish lines may appear in early stage. Some crescent-shaped rings may form.

Late stage: Distinct brownish, reddish-brown, or rusty-red, very soft, and finally reduced to a brown, fibrous,

stringy mass. Brown to reddish zone lines often found. Sometimes white patches evident. Logs may be hollow where presence of rot is long standing

Key identifying features:

- Conks (when present);
- Stringy, fibrous rot; and
- Rusty punk knots on logs (not swollen).

Cull rules: These cruising cull rules can be applied to rust-red stringy rot on white and red fir in southwestern Oregon.

<u>To estimate defect when:</u>	<u>Deduct:</u>
Conk is single, small, young	8 feet above and below conk
Lowest conk is 0 to 32 feet from ground	12 feet below conk; 21 feet above highest conk
Lowest conk is more than 32 feet from ground	20 feet below lowest conk; 21 feet above highest conk
Conks are in bottom third of tree	Middle and bottom third
Conks are in top third of tree	Top and middle third
Two or more conks are separated by 25 feet or more	Entire tree

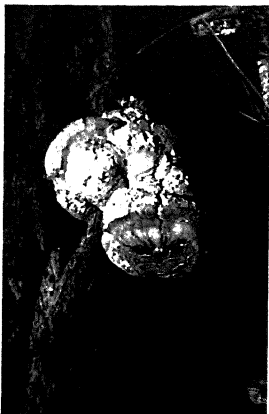


Figure 10 — Brown trunk rot conk on Douglas-fir

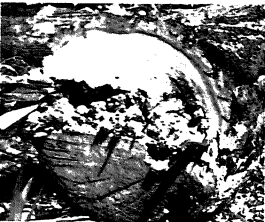


Figure 11 — Conk and decay from brown trunk rot on Douglas-fir

Brown Trunk Rot

Common names:

For the decay: Brown trunk rot, red-brown heartrot.

For the fungus: Quinine fungus, chalky fungus.

Hosts: Douglas-fir, ponderosa and sugar pines, larch, and sometimes other western conifers.

Entry: Branch stubs, wounds, broken tops.

Location: Trunk.

Conks: Rare, but unmistakable; Hard, perennial, and hoof shaped after several years of development; at branch stubs or on wounds. Conks chalky white to grayish; surface ridged and extensively cracked. Conks soft and white inside, with a bitter flavor; hence the name "quinine fungus."

Rot: A brown, cubical, heartwood rot of top and trunk. Closely resembles brown cubical rot, accurate diagnosis often difficult. Quinine fungus rare in the butt; mostly brown cubical rot there. Thick, bitter-tasting mycelium in quinine fungus; mycelium of brown cubical rot thinner and not bitter.

Early stage: Frequently difficult to detect, color varies by host species. In Douglas-fir, coloration ordinarily not evident, but may be a brilliant purplish; color in ponderosa pine commonly red-brown or brown.

Late stage: Wood breaks down into a crumbly mass of yellow-brown to reddish-brown cubical chunks.

Mycelium: In the late stage, thick, whitish mycelial felts common in shrinking cracks between cubes. Felts may become one-quarter of an inch thick and cover several square feet in a continuous sheet. Felts have characteristic bitter taste and resinous pockets or resinous crusty areas.

Red-Brown Butt Rot

Common names:

For the decay: Red-brown butt rot, red-brown rot.

For the fungus: Velvet-top fungus.

Hosts: Douglas-fir, pines, spruce, larch, hemlock, western redcedar, true firs.

Entry: Roots (basal scars).

Location: Butt and roots.

Conks: Annual, moist and cheesy when fresh; upper surface reddish brown, velvety with concentric rings and a light yellow margin. Die after a few weeks and become corky, leathery, and dark. Occur as thin brackets at tree base or as irregular saucers on nearby ground.

Rot: A cellulose-destroying, brown, cubical heartwood rot, commonly extending 2 to 10 feet above ground. rot column generally conical.

Early stage: Usually difficult to detect. Occurs as yellowish discoloration extending longitudinally an average of 2 feet beyond visibly decayed wood. Wood becomes soft and cheesy just before typical late stage is reached.

Late stage: Wood becomes soft, brittle, and breaks into large irregular cubes easily crumbled between fingers; reddish brown. Often has odor of turpentine.

Mycelium: Very thin mycelial layers, resembling crusts of resinous material, in shrinkage cracks between cubes.

Key identifying features:

- In butt log (swollen from ground up to 12 feet);
- Conks (when present);
- Cubes in late stage of rot; and
- Very thin mycelial felts between cubes.

Cull rules:

If the conk is found on a scar at the base of Douglas-fir and western hemlock or at the ground, deduct 8 feet of the butt log for young growth, and 16 feet of the butt log for old growth (8 feet on the Umpqua National Forest). If the conk is found on a scar 8 feet or more above the ground, deduct 32 feet.



Figure 12 — Old (left) and young (right) conks of red-brown butt rot, on the ground near the base of a tree.



Figure 13. — Red-brown butt rot associated with an old basal wound, in Douglas-fir.



Figure 14. — The root wad of a windthrown grand fir badly infected with yellow laminated rot.



Figure 15. — Yellow laminated rot in a grand fir.

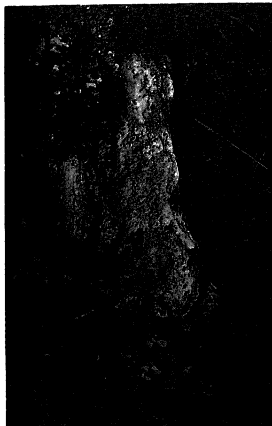


Figure 16. — Sporophore of yellow laminated rot at the base of a Douglas-fir.

Yellow Laminated Rot

Common names:

For the decay: Yellow laminated rot, yellow ring rot, paper rot, laminated root rot.

For the fungus: Brown cedar poria.

Hosts: Western redcedar, hemlocks, true firs, Douglas-fir, Engelmann spruce, western larch, pines.

Entry: Primarily roots contacting infected roots and stumps.

Location: Butt and roots.

Conks: Seldom found on living trees. Develop under roots, in root crotches and in basal scars, and on undersides of logs. Perennial, dark chocolate brown, in flat, crust-like layers about one-quarter of an inch thick, generally inconspicuous.

Rot: A white butt rot attacking lignin and springwood more readily than summerwood.

Early stage: Appears as a yellowing of the normal reddish-brown heartwood; the wood remains firm at first, but gradually darkens and softens; radial cracks form on drying.

Late stage: Wood becomes yellow brown to brownish and separates along annual rings, forming thin, papery layers. The thin layers have small elliptical pits parallel to the grain. On ends of logs, rot column may be crescent shaped at first but becomes uniformly circular as the decay develops.

Mycelium: Brownish strands of mycelial threads (setal hyphae) appear between laminated layers and in the elliptical pits.

Key identifying features:

- Separation of annual rings (lamination);
- Brown mycelial threads (setal hyphae); and
- In butt log.

Cull rules:

No cull rules have been established for yellow laminated rot. In Douglas-fir, decay seldom extends more than 5 to 6 feet above the ground. Stand openings with windthrown trees along the edge may indicate presence of the fungus within adjacent living trees.

White Spongy Rot

Common names:

For the decay: White spongy rot, annosus root rot, fomes root rot, spongy sap rot, white pocket rot, white stringy rot.

Hosts: Western hemlock, white pine, ponderosa pine, and other western conifers.

Entry: Roots and scars.

Location: Butt and roots.

Conks: Perennial, woody to leathery; develop on the lower side of living roots and root crotches, not easily seen. Usually thin, irregularly shaped, mainly occur as flat brown crusts, but sometimes bracketlike. White pore surface frequently incorporates litter into conk.

Rot: A white root and butt rot that decomposes lignin and, to a lesser extent cellulose, in both heartwood and sapwood.

Early stage: Appears as a pinkish to reddish-brown stain; wood firm.

Late stage: White fiber-filled pockets develop in affected sapwood or heartwood and eventually coalesce; wood separates at rings and finally becomes a white, stringy, spongy mass of fibers interspersed with black flecks of mycelium. Eventually wood may be destroyed and a hollow develop.

Key identifying features:

- In butt log;
- Frequently extends into sapwood;
- Black flecks in mycelium;
- Separation at annual rings; and
- Conks.

Cull rules:

For hemlocks, spruce, and some true firs, cull 16 feet of butt log if a conk occurs near the root collar and 4 feet above and below an infected wound.



Figure 17. — Decay from white spongy rot associated with a bear wound in western hemlock.



Figure 18. — White spongy rot sporophore at the base of a white fir.



Figure 19 — Sporophores from mottled rot



Figure 20 — Decay caused by mottled rot in white fir

Mottled Rot

Common names:

For the decay: Mottled rot, brown mottled rot, yellow heartrot.

For the fungus: Yellow cap fungus.

Hosts: True firs, hemlock, white pine, spruce.

Entry: Trunk and basal wounds, dead and broken tops, branch stubs.

Location: Butt, trunk, and tops.

Conks: Gilled mushroom, rather than a conk. Mushrooms annual, fleshy, yellow on upper surface, sticky when wet, stems yellow, gills yellowish to brown. Develop singly in close groups from a common base. Appear in fall sometimes on living trees but mostly on snags, windfalls, or stumps, lasting only a few weeks.

Rot: May be confused with brown stringy rot caused by the Indian paint fungus.

Early stage: Light yellowish color in small areas of heartwood.

Late stage: Discolored areas enlarge and darken to honey color, and brown streaks appear, producing the mottled appearance that gives the rot its common name. Wood breaks up in the last stages after separation at annual rings, finally becoming hollow.

Mycelium: Threads consist of many parallel strands. When wood is split or cut fine, holes are left in the wood where strands are pulled out.

Key identifying features:

- Mushrooms (when present); and
- Mottled.

Cull rules:

The main infection courts for this fungus are wounds, particularly basal wounds. Use cull rules for wounds if available, because fruiting occurs infrequently. For white and red fir in southwestern Oregon, deduct 1 foot below the bottom and 2 feet above the top of the wound.

Yellow Pitted Rot

Common names:

For the decay: Yellow pitted rot, long pitted rot, long pocket rot.

For the fungus: Fir hydnum, coral fungus.

Hosts: Grand and subalpine firs, Engelmann spruce, hemlock.

Entry: Wounds, dead branches.

Location: Mostly butt log, but not necessarily confined to that section.

Conks: Coral-like, white to cream, soft annual conks produced on old logs or dead, fallen trees; occasionally on living trees at wounds. Conks characterized by open branching habit and formation of many spines or teeth, fleshy, short lived.

Rot: A white pocket or pitted heartwood rot in living trees and common in stumps, snags, and fallen trees; continues to develop in stored logs.

Early stage: Rot remains firm, appears as a yellowish to brownish discoloration with scattered darker spots, giving affected wood a mottled appearance. Pattern at end of logs generally irregular.

Late stage: Forms elongated pits (pockets) about one-half of an inch long; pits may contain yellowish to white fibers or may be hollow and separated by firm, reddish-brown wood. Similar to red ring rot, but pits longer with blunt ends.

Key identifying features:

- Large pockets with blunt ends; and
- Scattered dark flecks in rot column.

Cull rules:

The main infection courts for this fungus are wounds, particularly basal wounds. Use cull rules for wounds if available, because fruiting bodies occur infrequently. For white and grand fir in southwestern Oregon, deduct 1 foot below the bottom and 2 feet above the top of the wound.

Brown Crumbly Rot

Common names:

For the decay: Brown crumbly rot.

For the fungus: Red belt fungus, scavenger fungus.

Hosts: Attacks all important conifers, principally larch, hemlock, true firs, and Douglas-fir.

Entry: In living trees, through wounds or dead tops.

Location: Variable; in living trees, around wounds.

Conks: Conks unmistakable; one of the most commonly seen species of wood-decay fungi. Perennial, hard, tough, and hoof to shelf shaped. Upper surface smooth, zoned in gray to black, with a reddish band just inside a white wavy margin.

Rot: Principally a cellulose-destroying brown rot. Very important as a slash rot. Decay in living trees uncommon in the Northwest. Very harmful in deterioration of salvable, killed timber, down trees, and stored logs. Attacks sapwood rapidly, then progresses into heartwood.

Early stage: May appear as a faint brown to yellow-brown stain.

Late stage: Light reddish brown, forming a crumbly mass broken into rough, rather small cubes. Small patches of lighter color may give a mottled appearance on end of log.

Mycelium: Mycelial felts form in shrinkage cracks. Felts are thicker than most similar rots, but not as thick as quinine fungus. Unlike the velvet-top fungus, they are nonresinous.

Key identifying features:

- Brown cubes in late stage;
- Usually in old logs or logs from dead trees;
- Sapwood as well as heartwood affected; and
- Conks (when present).

Cull rules:

No cull rules have been established. Brown crumbly rot usually occurs only on dead wood. If on a living tree, it usually occurs on the face of a wound.



Figure 21. — Sporophore from yellow pitted rot on grand fir.

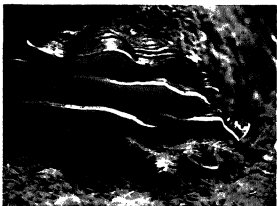


Figure 22. — Sporophores from brown crumbly rot on a western hemlock.

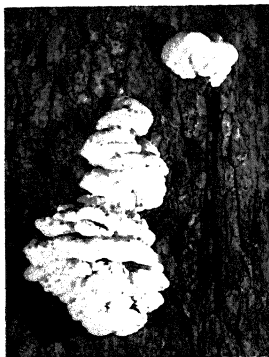


Figure 23 — Sporophore from brown cubical rot



Figure 24 — Sporophore from brown top rot on Douglas-fir

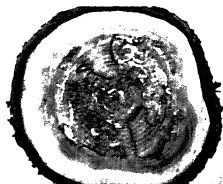


Figure 25 — Brown top rot in Douglas-fir

Brown Cubical Rot

Common names:

For the decay: Brown cubical rot, red-brown heartrot.

For the fungus: Sulphur fungus, chicken-of-the-woods.

Hosts: Douglas-fir, white and ponderosa pines, true firs, larch, hemlock, and spruce.

Entry: Wounds, branch stubs.

Location: Sometimes trunks, generally butts.

Conks: Conks one of the most conspicuous of all wood-decay fungi; many often appear in fall on wounds at or near the base of living trees, on stumps, and on fallen logs. Annual, brilliant orange to red orange above and sulphur yellow below. Generally thin and broad, with several parts one above another; edges wavy.

Rot: A cellulose-decomposing, heartwood and occasionally sapwood, brown, cubical rot with mycelial felts. Can be confused with brown trunk rot, red-brown butt rot, or brown crumbly rot.

Hidden stage: Hidden stage usually present; detectable only by microscopic or cultural study.

Early stage: Appears as a light-brown stain.

Late stage: A dark reddish-brown decay breaking into medium-sized irregular cubes. May look rippled in longitudinal section. Cracks of cubes are often completely filled with white mycelial felts plainly evident in cross section, appearing as a network. These felts do not have resin pockets like brown trunk rot (quinine fungus) nor resinous crusts like red-brown butt rot (velvet-top fungus).

Key identifying features:

- A brown cubical rot;
- Generally in butt rather than trunk;
- Conks (rare on logs); and
- Mycelial felts, if typical.

Cull rules:

No cull rules have been established.

Brown Top Rot

Common names:

For the decay: Brown top rot.

For the fungus: Rose-colored conk.

Hosts: Douglas-fir, grand fir, larch, lodgepole and white pines, spruce, and other western conifers.

Entry: Broken tops (branch stubs).

Location: Upper trunk.

Conks: Delicate, rose-colored under surface and inner tissue; perennial, woody, bracketlike to hoof shaped; usually appear in a shelving arrangement. Upper surface brown to black, usually cracked and roughened.

Rot: A brown, cubical heartwood rot in living trees, often limited to the top log or unmerchantable top. Frequently found in dead trees, both standing and down; develops rapidly. May continue to develop in wood in service; important in piled logs and pulpwood.

Hidden stage: Wood often moderately affected before discoloration or texture change becomes evident.

Early stage: A faint brownish or yellowish brown stain, outer limits sometimes marked by a greenish-brown zone line.

Late stage: Yellowish to reddish brown soft, irregularly broken into cubes.

Mycelium: Thin mycelial felts, which vary from white to faint rose-colored, often develop in the cracks between cubes.

Key identifying features:

- Upper trunk and tops;
- Conks (when present);
- Mycelium; and
- Dead or broken tops.

Cull rules:

Conks are difficult to see at the tops of trees. The best indicator is usually the dead or broken top which may be on the ground. For Douglas-fir and hemlocks with conks or a broken top, deduct 16 feet below the indicator.

Pencil Rot

Common names:

For the decay: Pencil rot, pecky rot, pocket dry rot, pecky cedar, pine rot, incense-cedar dry rot.

For the fungus: Incense-cedar fungus.

Hosts: Incense-cedar, some true firs.

Entry: Fire and other wounds and branch stubs.

Location: Butt and bole.

Conks: Annual sporophores at knots, usually in the summer or autumn; rare. Conks bracket shaped with rounded tops or half-bell shaped. Young conks soft and mushy with a smooth, tan top and a bright sulphur-yellow undersurface with numerous small tubes that sometimes exude clear drops of a yellow, sweet liquid. With age, conks become tough and cheesy, turning brown and finally hard and dry. Last stage rare because insects, birds, and squirrels destroy the conk. A shot-hole cup forms at and below the knot where a conk destroyed by insects or birds had been attached.

Rot: A typical brown cubical rot that attacks cellulose and forms pockets separated by apparently sound wood.



Figure 26. — A shot-hole cup in incense-cedar caused by pencil rot. Note that part of the old conk is still attached.

Early stage: At first, firm and faintly yellowish brown in the pockets. The color deepens slightly with time and the wood becomes soft. This stage extends only a short distance vertically beyond the late stage.

Late stage: Pockets filled with a dark-brown, carbonaceous crumbly mass. A sharp separation occurs between decayed and sound wood.

Mycelium: Small, cobweblike or feltlike masses of white mycelium may occur in pockets.

Key identifying features:

- Conks (when present);
- Shot-hole cups at or below knots; and
- Brown cubical pocket rot.

Cull rules:

For incense-cedar, conk or shot-hole cup indicates a cull tree. Decay is almost always present in trees over 40 inches diameter at breast height and in trees with basal wounds or old, dead limbs.



Figure 27. — Sporophore from pencil rot on incense-cedar.



Figure 28. — Cross section of incense-cedar log showing pencil rot decay.

Injuries Indicating Associated Defect



Figure 29 — Old basal injury probably caused by fire

Basal Injuries

Basal injuries — open or closed wounds in contact with the ground — are important defect indicators for all tree species. They may be caused by animals, fires, falling trees, or mechanical equipment. Sometimes inconspicuous, they may be easily overlooked. Basal wounds less than 10 years old should be ignored because little or no defect is usually associated with them.

Cull rules:

For white and red fir in southwestern Oregon, deduct 9 feet above the top of the wound.



Figure 30 — Trunk injury indicating internal defect

Trunk Injuries

Trunk injuries are important indicators for all tree species. They include open or closed wounds more than 1 foot long, more than 10 years old, and located below the merchantable-top diameter, but not in contact with the ground. They are caused by falling trees, logging equipment, lightning, and animals. Small, young wounds are unreliable indicators of decay.

Cull rules:

For white and red fir in southwestern Oregon, deduct 1 foot below the bottom and 2 feet above the top of a wound.

Frost Cracks

Frost cracks may occur in any species, but they are important defect indicators mainly in true firs and hemlocks. Frost cracks or seams are associated with wounds and wetwood. The cause of wetwood is unknown, but it appears to develop in true firs after wounding. The inrolled callus growth as a wound heals



Figure 31. — A frost crack at the base of a white fir.



Figure 32. — Cross section at the base of a white fir showing frost cracks, shake, and wetwood.

the tree causes a crack to develop from the face of the injury through the bark. In time, the crack may increase longitudinally, and other seams may develop at right angles to the original crack, resulting in a star-shaped pattern. Frost cracks are seldom infection courts for decay fungi. Occasionally, old wounds from which the frost crack originated may have associated decay columns. Because old wounds may no longer be visible, frost cracks are the indicators of defect.

Cull rules:

No cull rules are available for frost cracks.



Figure 33. — Broken top in the merchantable portion of a white fir tree.



Figure 34. — White fir with a dead top caused by beetle attack.

Top Injuries

Top injuries include tops broken by wind, ice, or snow and dead tops caused by insects, rust fungi, dwarf mistletoe, and animals. Recent top damage and damage occurring above the merchantable-diameter limit are not defect indicators.



Figure 35. — A forked white fir tree.

Forks

Forked trees usually result when two or more branches replace a dead or broken leader.



Figure 36. — White fir with a crook caused by death of the leader. Presence of the old, dead top indicates decay.



Figure 37. — Crook resulting from bending of young tree by snow or ice. No break occurred, so no decay is present.

Crooks

Crooks are sudden bends in the merchantable bole of a tree. Crooks may result when young trees bend under ice or snow. This type of crook is free of decay. In older trees, crooks may result from breaks or leader death when a lateral branch assumes dominance and becomes the new tree top. Decay usually is present if the

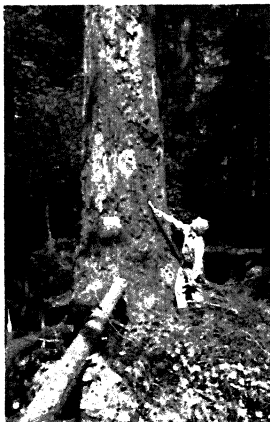


Figure 38. — White fir tree with a swollen butt resulting from healing of an old injury.

Swollen Butts

Swollen butts are often caused by healing of an old wound or by the reaction of a tree to a root-rot fungus.



Figure 39. — A dwarf mistletoe bole canker with tight bark; no decay should occur.



Figure 40. — Open dwarf mistletoe canker on a white fir. Decay may be present, but seldom extends beyond the limits of the swelling.

Dwarf Mistletoe Cankers

Dwarf mistletoe cankers are large pronounced swellings or cankers produced on branches or boles of host trees by dwarf mistletoes. If the bark is tight, these cankers do not admit decay fungi. When the bark on one of these cankers sloughs off and exposes wood, infection by decay fungi can occur. In white fir, decay generally does not extend beyond the limits of the

Cruisers and scalers in western Oregon may want to search out additional technical information. The following publications will help in making more precise estimates of net volumes in standing trees and logs:

Aho, Paul; Hadfield, Jim. How to estimate defect in white fir in southwest Oregon. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station; 1975. 12 p.

Aho, Paul E.; Roth, Lewis F. Defect estimation for white fir in the Rogue River National Forest. Res. Pap. PNW-240. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station; 1978. 18 p.

Boyce, J.S.; Wagg, J.W.B. Conk root of old growth Douglas-fir in western Oregon. Bull. 4. Corvallis, OR: Oregon State University, Forest Products Laboratory; 1953. 96 p.

Childs, T.W. Estimating decay in west-side Douglas-fir. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station; 1959. 8 p.

Hunt, J.; Krueger, K.W. Decay associated with thinning wounds in young-growth western hemlock and Douglas-fir. J. For. 60 (5): 336-340; 1962.

Shea, K.R. Decay in logging scars in western hemlock and Sitka spruce. For. Res. Note 25. Centralia, WA: Weyerhaeuser Timber Company; 1960. 13 p.

Wright, E.; Isaac, Leo A. Decay following logging injury to western hemlock, Sitka spruce, and true firs. Tech. Bull. 1148. Washington, DC: U.S. Department of Agriculture; 1956. 34 p.

Appendix

Table 3 — Scientific names of taxa mentioned in the text

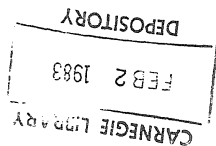
Common name	Scientific name
Fungi¹	
Red ring rot	<i>Phellinus pini</i> (Thore ex Fr.) A. Ames
Red ring rot (var. <i>cancriformans</i>)	<i>Phellinus pini</i> (Thore ex Fr.) A. Ames var. <i>cancriformans</i> Larsen, Lombard, et Aho
Red ray rot	<i>Dichomitus squalens</i> (Karst.) Reid
Red root and butt rot	<i>Inonotus circinatus</i> (Fr.) S. C. Teng
Rust-red stringy rot	<i>Echinodontium tinctorium</i> (Ell. et Ev.) Ell. et Ev.
Brown trunk rot	<i>Fomitopsis officinalis</i> (Vill. ex Fr.) Bond. et Sing.
Red-brown butt rot	<i>Phaeolus schweinitzii</i> (Fr.) Pat.
Yellow laminated rot	<i>Phellinus weirii</i> (Murr.) Gilbn.
White spongy rot	<i>Heterobasidion annosum</i> (Fr.) Bref.
Mottled rot	<i>Pholiota limonella</i> (Pk.) Sacc.
Yellow pitted rot	<i>Hericium abietis</i> (Weir ex Hubert) K. Harrison
Brown crumbly rot	<i>Fomitopsis pinicola</i> (Swartz ex Fr.) Karst.
Brown cubical rot	<i>Laetiporus sulphureus</i> (Bull. ex Fr.) Bond. et Sing.
Brown top rot	<i>Fomitopsis cajanderi</i> (Karst.) Kotl. et Pouz.
Pencil rot	<i>Tyromyces amarus</i> (Hedgc.) Lowe
Trees	
Douglas-fir	<i>Pseudotsuga menziesii</i> (Mirb.) Franco
Fir	
California red	<i>Abies magnifica</i> A. Murr.
Grand	<i>A. grandis</i> (Dougl. ex D. Don) Lindl.
Noble	<i>A. procera</i> Rehd.
Pacific silver	<i>A. amabilis</i> Dougl. ex Forbes
Subalpine	<i>A. lasiocarpa</i> (Hook.) Nutt.
White	<i>A. concolor</i> (Gord. & Glend.) Lindl. ex Hildebr.
Hemlock	
Mountain	<i>Tsuga mertensiana</i> (Bong.) Carr.
Western	<i>T. heterophylla</i> (Raf.) Sarg.
Incense-cedar	<i>Libocedrus decurrens</i> Torr.
Larch, western	<i>Larix occidentalis</i> Nutt.
Pine	
Lodgepole	<i>Pinus contorta</i> Dougl. ex Loud.
Ponderosa	<i>P. ponderosa</i> Dougl. ex Laws.
Sugar	<i>P. lambertiana</i> Dougl.
Western white	<i>P. monticola</i> Dougl. ex D. Don
Whitebark	<i>P. albicaulis</i> Engelm.
Port-Orford-cedar	<i>Chamaecyparis lawsoniana</i> (A. Murr.) Parl.
Redcedar, western	<i>Thuja plicata</i> Donn ex D. Don
Spruce	
Engelmann	<i>Picea engelmannii</i> Parry ex Engelm.
Sitka	<i>P. sitchensis</i> (Bong.) Carr.

¹ Fungi are in order of mention in text.

Aho, Paul E. Indicators of cull in western Oregon conifers. Gen. Tech. Rep. PNW-144. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station; 1982. 17 p.

Descriptions and color photographs of important fungal sporophores (conks), other indicators of cull (wounds), and associated decays in western Oregon conifers are provided to aid timber markers, cruisers, and scalers in identifying them. Cull factors are given for the indicators by tree species.

Keywords: Cull logs, decay (wood), timber cruising, log scaling, coniferae, western Oregon.



The **Forest Service** of the U.S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.

The U.S. Department of Agriculture is an Equal Opportunity Employer. Applicants for all Department programs will be given equal consideration without regard to age, race, color, sex, religion, or national origin.

Pacific Northwest Forest and Range
Experiment Station
809 NE Sixth Avenue

United States
Department of
Agriculture

Forest Service

Pacific Northwest
Forest and Range
Experiment Station

General Technical
Report
PNW-144

September 1982



Indicators of Cull in Western Oregon Conifers

Paul E. Aho



therefore expense, can be saved in the coordination and review processes. To the extent practicable, proposed letters should be reviewed in draft form, and prepared only after approval from competent authority, in final form, or after they have been approved by the highest review level.

Revisions should not be rerouted to an intermediate office for additional coordination unless they contain substantive changes significantly affecting that office. Records of clearance can be maintained on earlier drafts, and noted on the final file copy. Offices which review only for coordination purposes should limit their official comments to matters of significant, direct concern to them; other comments may be made in the form of suggestions, but should not result in complicating or slowing the review progress.

One procedure which has been used successfully is for the initial review process to concern itself only with the substance of drafts of proposed letters, such as compliance with policy and soundness of judgment. When those matters have been resolved, an editor takes the draft and puts it in proper style and format. A final look by the original drafter verifies that the substantive meaning has not been changed, and the revised version is then ready for signature.

Often, a reviewer will note possible improvements in a letter, but will not consider return

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purely personal type because it interferes with handling of official mail, and personally addressed official correspondence because it is harder to route and control. A certain amount of such mail is received, however, and is delivered unopened.

Official mail is also routed without opening whenever possible. This is done, of course, only when information on the envelope indicates clearly the organizational subdivision addressed.

After opening, the mail is again sorted. At this time, routine mail—that which presents no special problem—is separated from that which is nonroutine. The sorter does not read further than the address line, or at most the subject line, so only readily identifiable items are handled as routine. This represents the bulk of the mail.

Mail requiring priority handling is delivered promptly, as is routine mail that can go directly to the action office without other routing and control.

Mail that remains for the third sorting includes, for the most part, that for which the action addressee is not readily determined and mail that is likely to require control. The main purpose of this sorting is to separate mail requiring controls.

7. **Plant Property.** This includes all Navy-owned land, buildings, and personal property of a capital nature that is located at SHORE activities. There are four classes of plant property as follows:

- a. Class 1. Land.
- b. Class 2. Buildings and utilities.

c. **Class 3.** This includes Navy-owned property of a capital nature. It must have an expected normal life of 1 year or more; it must not be consumed in the performance of its work; it must not be a part of supply stock; it must not be permanently installed in buildings; it includes industrial equipment (similar to class 4) that costs less than \$1,000.

d. **Class 4.** This includes industrial plant equipment that costs \$1,000 or more and is used for cutting, grinding, shaping, forming, joining, testing, measuring, heating, and treating components used in manufacturing or maintenance of items of supply. It does not include items costing less than \$1,000 as this would qualify as class 3.

8. **Plant Account Number.** This is an eleven digit number that is affixed to each plant property class 3 or 4 item. It is assigned by the station that

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Chapter 1—ADMINISTRATION

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27. ELECTRICAL CHARACTERISTICS								
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34.	ARE MAINTENANCE COSTS NORMAL? IF NOT, EXPLAIN UNDER REMARKS BELOW							
35.	ARE SAFETY DEVICES ADEQUATE AND SATISFACTORY? IF NOT, EXPLAIN UNDER REMARKS BELOW							
36.	ARE INSTALLATION INSTRUCTIONS AVAILABLE FOR TRANSFER?							

ashore for subcustody purposes. The NAVSUP Form 306 is illustrated in figure 1-3(A) and the NAVSUP Form 460 is illustrated in figure 1-3(B).

NAVSUP Forms 306 and 460 Preparation Procedures

The Controlled Equipment Custody Record must be prepared by typewriter or in ink in the original and one copy for any item listed in Appendix 11 of NAVSUP Publication 485. The original of each custody record is retained by the supply department. The copy is given to the applicable department head.

In the following subparagraphs some of the blocks of these forms and the types of information that is inserted are discussed.

STOCK NUMBER.—This is the National Stock Number (NSN) of the item. If it cannot be determined, the manufacturer's code and part number are inserted in this block.

NOUN NAME.—This is the actual name of the item. It may also include the model number (e.g., Jacket, A-2).

DEPARTMENT.—This is the department

potential or development assigned on which could be available to storage are classification protection.

Aviation billets which tion and equipment prepared to handle the security

The object awareness of classified material not be used in latest edition (Series), Information, should requirements

Table 1-2.—Controlled custody signature

Chapter 1—ADMINISTRATIVE

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(A)

Card No.	Department	FSN/Part No.	Noun name	Allowance

requirements may be more specific or go beyond Navy-wide requirements to meet local situations and should also be considered.

RESPONSIBILITIES

The Chief of Naval Operations is responsible to the Secretary of the Navy for all policies relating to the maintenance of the security of all classified information within the Naval Establishment. Owing to the close relationship of counterintelligence and the preservation of security, the Director of Naval Intelligence has been designated as the officer primarily responsible to the Chief of Naval Operations for the protection of classified information. Therefore, the Office of Naval Intelligence formulates and promulgates Navy policies which relate to the security of all classified information.

Commanding officers are directly responsible for safeguarding all classified information within their commands and are responsible for instructing their personnel in security practice and procedures.

Objective

The objective of the orders and instructions

information is actually require and then only appropriate se generally refe is a prime req mation. Acco automatically proper clearan sufficiently se criteria of pro are both met.

PROCEDURE

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Classification

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The examples of classification categories set forth under the definitions of classifications are the basic criteria used in the preparation of the guides. The guides are kept current by additions or deletions as appropriate.

CLASSIFICATION ACCORDING TO CONTENT.—The responsible authority at the time of signature or approval of any document (and at every opportunity thereafter) carefully reviews its content in the light of the category definition of the classification assigned. In all cases in which the security considerations fail to support this classification fully, the responsible authority directs the assignment of a lower classification or declassification. Security considerations take into account the ultimate required dissemination of the information involved. In those circumstances where the known necessary dissemination is so extensive that security protection is impracticable, or where effective control must pass substantially from U.S. military authority or other responsible organization, security classifications are not assigned or continued.

Documents and information, including extracts therefrom, are classified according to content and not according to relationship to other classified information. Documents which refer to

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OPNAV Instruction 5510.1 (Series) contains additional information concerning the marking of classified material including the marking requirements for other types. The AK concerned with the preparation or handling of classified material should become thoroughly familiar with the contents of this instruction.

In marking or stamping (not typing alone) the classification Top Secret, Secret, or Confidential, the lettering shall be all capitals and, when practicable, shall be larger than the text of the document and red in color.

The manner of marking classified equipment, products, and substances depends on the nature thereof. Normally, the assigned classification is conspicuously marked by stamping, etching, or attaching a classification plate thereto. If this is not possible, the container shall be appropriately marked. If the article or the container cannot be marked, written notification of the assigned classification shall be furnished to recipients of classified equipment, products, or substances.

General Storage Procedures

Classified material not in actual use by appropriately cleared personnel or under their direct personal observation shall be stowed in the manner prescribed in chapter 5 of OPNAV

The number of containers for classified material in storage shall be determined for the purpose of establishing a system of stowage containers in such manner as to determine the interest and also sets for security purposes integrated protection. The Instruction on numerical classification applied to referred to has custody

Keys and

Keys for classified material shall be the same level of protection. It is or keys be official documents involved. The container shall be at the time leaves the

Chapter 1—ADMINISTRATION

having responsibility for the safekeeping of classified matter should acquaint themselves with all local regulations regarding the handling and storage thereof.

Transfer of Classified Material

Procedures for forwarding documents to Naval Records Management Centers, the National Archives, or GSA Federal Records Centers are established by the Secretary of the Navy (Administrative Officer). Classified documents so forwarded shall be safeguarded in accordance with the regulations set forth in OPNAV Instruction 5510.1 (Series). The procedures for the transfer of records apply to record material as defined in SECNAV Instruction 5212.5 (Series), or subsequent revisions. Extra copies and nonrecord material shall be destroyed after their period of usefulness has ended.

When military or civilian personnel resign, or are to be separated from the Naval Establishment or released from active duty, all classified material held by them shall be turned in to the source from which received, to their commanding officer, or to the nearest naval command, as appropriate, prior to the delivery of final orders or separation papers.

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against their compromise through capture. Destruction plans of particular activities will call for the exercise, by personnel at all levels, of the highest degree of individual initiative practicable under the operating conditions of such activity, in preparing for and in actually commencing destruction required under the plan. Particular care will be taken to indoctrinate all personnel to ensure their understanding that, in such emergencies and when required, they will initiate necessary destruction under the plan without waiting for specific orders. Lists shall be prepared which show the locations of classified material, personnel responsible for destruction, and the recommended place and method of destruction.

Accounting, Handling, and Custody Procedures for Classified Stock and DTO Material

This section discusses the procedures involved in handling classified STOCK/DTO material. Examples of some material that could be classified and carried in stock, or received for DTO, by ships and stations are electronic components and cognizance I forms and publications.

It is important to remember that, until a signature is obtained from a PROPERLY

Once classified material is received by the receiving department, it must be stored in a secure location. The receiving department must ensure that the material is stored in a secure location in accordance with the requirements of the receiving department. Instruction 55

If the classified material is damaged or lost, the receiving department must take appropriate action to ensure that the material is protected and that the damage is covered in shipping and handling records. The following procedures must be taken:

1. When the outer cover of the material is damaged or lost, the outer cover must be repaired, a replacement must be submitted to the receiving department, and the activity must be reported.

When loss or damage occurs to such packages, the receiving department must be notified by Chapter 6, and the receiving department must be taken into account.

2. If the package is damaged or lost, the receiving department must be notified by Chapter 6, and the receiving department must be taken into account.

Receiving department must be notified by Chapter 6, and the receiving department must be taken into account.

Chapter 1—ADMINISTRATIVE

least annually. An investigation must be made of all quantitative differences and unreconciled differences must be reported in accordance with Chapter 6, OPNAV Instruction 5510.1 (Series).

ISSUES/SHIPPING.—Requests for classified material will be received in the form of a message, speedletter, or requisition. All requests must be delivered to the issue control branch to a designated person cleared to handle classified material. Designated personnel will place one copy of the request in the issue control file and the other copies of the request document must be hand-carried to the designated stock control and financial editing personnel for processing. Expenditure documents may include coded security information; however, documents which include classified data must not be attached to the exterior of the container but will be mailed to the consignee.

Advance notice of shipment must be made to receiving and transshipping activities when means other than the U.S. Postal System is used. Such advance notification must be made at least 24 hours in advance of arrival of the shipment in a manner which will ensure identification prior to receipt of material. The communication method used (message, advance copy of shipping paperwork, etc.) must contain the following notation: "Advance Notice of Shipment" OPNAVINST

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5. New typewriter ribbons used in the preparation of classified material shall either be typed over until illegible, or be given the same classification and safeguarded in the same manner as the classified information prepared from them.

If, for any reason, a room must be vacated during working hours, the classified material therein must be stowed in the prescribed manner as if it were after working hours.

AFTER WORKING HOURS.—Commanding officers shall institute a system of security checks at the close of each working day to ensure that the classified material held by the command is properly protected. They shall require the custodians of the classified material to make an inspection which will ensure, as a minimum, that:

1. All classified material is stowed in the manner prescribed by OPNAV Instruction 5510.1 (Series).

2. All classified material which must be passed from watch to watch is properly accounted for.

3. Burn bags are properly stowed or destroyed.

4. The contents of wastebaskets which contain classified material have been properly

CHAPTER 2

PUBLICATION

Publications and catalogs are valuable “tools” to the AK in all billets to which they may be assigned. Most of the functions performed by AKs involve preparing and handling documents which contain extensively coded information. Standardized coding and processing procedures are required for the rapid communications media and the data processing techniques of a modern defense supply system.

In addition, AKs are involved in preparing documents obligating public funds and for maintaining custody/inventory records for property purchased with public funds. Legal restrictions and regulations for safeguarding public funds and property affect these procedures. AKs also deal

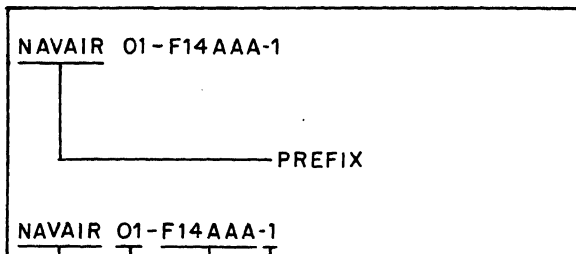
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letters are separated by a dash. Additional numbers are sometimes added to designate multiple volumes of a manual. A manual prefix (such as NAVAIR) identifies the command responsible for developing and maintaining the manual. The three parts that make up the rest of the number are discussed in the following paragraphs. (See figure 2-1.)

Part I

Normally, Part I of the manual number is a two-digit number (occasionally two digits and a letter) that designate the general subject classification or major category of the manual; such as 01 for airframes, 02 for power plants, and 03 for accessories (table 2-1).



Part II

Part II of the manual number is a number that identifies either a specific group of manuals. NAVAIR manuals are known as Group 1, 2, or 3 fuel systems.

Part III

Part III of the manual number is a number that identifies a particular manual. It is a number that may be used by volume. NAVAIR manuals are issued in series, that is, they are maintained. The

Chapter 2—PUBLICATION

Table 2-1.—Common NAVAIR publication two-digit base

Category Number Series	Definition
00	Includes GENERAL NAVAIR manuals such as lists, allowance lists, NAVAIR publications in
01	Includes operating insruction; maintenance, se ILLUSTRATED PARTS BREAKDOWNS (IP
02	Includes operating instructions; maintenance, s IPB's for aircraft ENGINES. 02A Series—Reciprocating engines 02B Series—Jet engines 02F Series—Rocket engines
03	Includes operating instructions; maintenance, s IPB's for aircraft ACCESSORIES.
04	Includes aircraft hardware and rubber material
05	Includes operating instructions; maintenance, s IPB's for aircraft INSTRUMENT and related
10	Includes operating instructions; maintenance

AVIATION STOREKEEPER

Table 2-2.—Aircraft manuals, by manufacturer in the 01 series

01-1	General	01-115	Fairchild
01-5	Convair	01-125	Cessna
01-30	Radioplane	01-140	Piper
01-35	Martin	01-150	Gyrodyne
01-40	Douglas	01-195	Goodyear
01-45	Chance-Vought	01-230	Sikorsky
01-60	North American	01-245	McDonnell
01-75	Lockheed	01-250	Vertol
01-85	Grumman	01-260	Kaman
01-90	Beech	01-265	Raytheon
01-100	Ryan	01-270	Temco
01-110	Bell		

5. Part V is used only for multivolume publications. It designates the volume number. For example, in the five-part publication number previously used (NA-01-75PAA-4-14), the 14 designates this publication as volume 14 of the P-3A and P-3B IPB.

NAVAL AERONAUTIC PUBLICATIONS INDEX

NAVAIR developed the *Naval Aeronautic Publications Index* (NAPI) to establish a direct relationship between the NAVAIR technical

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TD CODE	TYPE OF DIRECTIVE	ABBREV
76	Airborne Weapon Bulletin	AWB
77	Target Control Sys Change	TCC
78	Target Control Sys Bulletin	TCB
85	VAST System Change	VSC
86	VAST System Bulletin	VSB
87	VAST Interface Change	VIC
88	VAST Interface Bulletin	VIB

NOTE: INT—Interim Technical Directives, (message format)—will be identified as I. When issued as a formal printed change the “I” will be removed. Interims are not stocked for normal distribution and may not be ordered through the aeronautical publication supply system.

Microfilm Cartridge Cross-Reference NAVAIR 00-500M (Series)

The NA 00-500M series index provides information on the contents, application, and status of Maintenance Information Automated Retrieval System (MIARS) microfilm cartridges. MIARS cartridges contain technical manuals issued by the Commander, Naval Air Systems Command. The index is prepared with Parts I and II contained in NAVAIR 00-500M-1. It is issued quarterly with

Chapter 2—PUBLICATIONS

three major sections. Each section contains the following categories of material:

Section 1—Forms

Section 2—Publications

Section 3—NAVAIR Technical Directives

A table of contents is located in the lower right-hand corner of each fiche, on the 270th frame, grid number 18-0. It lists the first line of each frame on that particular fiche and where it is located (frame number) on the fiche. Each fiche contains eye-readable header information across the top of the fiche beginning at the left-hand margin. This header data reflects the information that is recorded on the first line of the first frame of the fiche being used. Fiche should be placed in the reader with the eye-readable side up, and with the heading toward the operator.

The NAVSUP 2002 contains all current cognizance OI publications and cognizance II forms. Additionally, it reflects data such as Canceled, Canceled—No superseding S/N, Canceled—Incorporated in Basic S/N, and Replaced By information. All form and publication requests should be checked against the 2002 before ordering.

Paragraph

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Supply Ashore Volume II

Volume II contains basic supply principles and procedures for supply activities ashore. These procedures include requisitioning and local procurement, material receipt, stock management at field supply points, material expenditure, supply system management, and storage and materials handling.

The following is a listing of chapters in Volume II:

Chapter 1—Basic supply principles.

Chapter 2—Requisitioning and local procurement.

Chapter 3—Material receipt.

Chapter 4—Stock management at field supply points (i.e., local supply departments).

Chapter 5—Material expenditures.

Chapter 6—Supply system management.

Chapter 7—Storage and materials handling.

Retail Clothing and Commissary Stores Volume IV

Volume IV contains procedures for the operation of retail clothing stores (small stores) and

Chapter 2—PUBLICATIONS

SHEETS IN FORCE

AFLOAT SUPPLY PROCEDURES (NAVSUP PUBLICATION 485)

The following is a list of sheets in force through Change 23. It is to be used to verify the accuracy of the publication in accordance with the need for such verification. (See Introduction.) In the following list "CS" is used to indicate the cover sheet or sheets of a change, "SIF" is used to indicate the list of sheets in force, and "0" is used to indicate a sheet from the original printing. A change and page number ruled out indicates the sheet is to be removed without replacement.

Missing changes may be requested from the Naval Publications and Forms Center, Philadelphia, in accordance with the Navy Stock List of Publications and Forms, Cognisance Symbol I (NAVSUP Publication 2002).

Ch.	Page	Ch.	Page	Ch.	Page	Ch.	Page
Record of Change		23	1-49	13	2-39	21	3-39
Information Sheet		23	1-51	13	2-41	20	3-41
23 CS		23	1-53	13	2-43	20	3-43
23 SIF		2	1-55	13	2-45	20	3-45
23 CS		20	1-57	13	2-47	14	3-47
23 SIF		4	1-59	13	2-49	14	3-49
23 SIF		20	1-61	13	2-51	14	3-51
0 1		4	1-63	13	2-53	14	3-53
22 iii		13	2-1	13	2-55	14	3-55
22 v		13	2-3	10	2-57	14	3-57
0 vii		4	2-4-1	20	2-59	20	3-58-1
10 ix		15	2-4-3	4	2-61	19	3-59
13 1-1		21	2-4-5	13	2-63	12	3-61
0 1-3		21	2-5	13	2-65	16	3-63
0 1-5		0	2-7	13	2-67	0	3-65
0 1-7		0	2-9	20	3-1	0	3-67
0 1-9		15	2-11	22	3-3	0	3-69
11 1-11		20	2-13	20	3-5	5	3-71
0 1-13		12	2-15	18	3-7	8	3-73
4 1-15		0	2-17	20	3-9	15	3-75
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0 1-21		20	2-22-1	14	3-15	23	3-81
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6 1-25		20	2-22-5	14	3-19	0	3-85
0 1-27		20	2-23	20	3-21	0	3-87
0 1-29		20	2-25	20	3-23	23	3-89
16 1-31		0	2-27	20	3-25	7	3-91
16 1-33		13	2-29	19	3-26-1	0	3-93
0 1-35		23	2-30	20	3-27	0	3-95
						10	3-97

basically the same for all manual-type supply publications.

NAVSUP PUBLICATIONS

NAVSUP originates many publications that deal with different facets of supply. In this section some of these publications are discussed which are of particular interest to the AK.

Publication Numbering

NAVSUP publications are referred to in four different ways. For example, the *NAVSUP Operating Procedures Manual for MILSTRIP/MILSTRAP* may be referred to in various publications and directives as one of the following:

1. NAVSUP Publication 437.
2. NAVSUP Pub 437.
3. NAVSUP P-437.
4. NAVSUP 437.

Chapter 2—PUBLICATION

and Accounting Procedures (MILSTRIP/MILSTRAP). The provisions of this publication take precedence over conflicting provisions contained in other supply system manuals or directives. NAVSUP Publication 437 consists of 10 chapters and several appendixes and exhibits. This publication covers MILSTRIP/MILSTRAP procedures relative to supply system management, requisitioning ashore, inventory control, financial matters, material movement priorities, and evaluation procedures (MILSTEP). It provides forms, formats, codes, and it serves as a comprehensive ready reference for personnel involved in the preparation and/or processing of MILSTRIP documents. The following is a listing of its chapters and their respective titles:

- Chapter 1—Introduction.
- Chapter 2—Supply system management.
- Chapter 3—Requisitioning ashore.
- Chapter 4—Inventory control at stock points.
- Chapter 5—MILSTRIP/MILSTRAP financial inventory accounting.
- Chapter 6—Material movement.
- Chapter 7—Uniform material movement and issue priority system.
- Chapter 8—Expendable ordnance.
- Chapter 9—Military assistance program (MAP).

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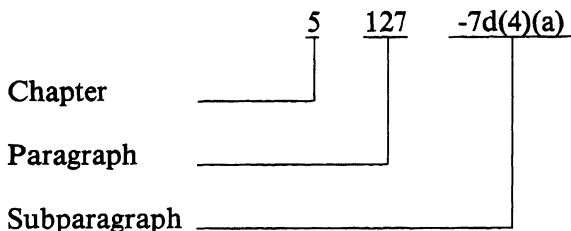
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In addition to these six chapters, NAVSUP P-485 contains several appendixes which contain such information as advice codes, document identifier codes, fund codes, units of issue, etc.

Paragraph numbers in this publication consist of a basic four-digit number and its applicable subparagraph designator. The following is a breakdown of NAVSUP P-485 paragraph number 5127-7d(4)(a).



Changes are published periodically as required and are incorporated in the manner discussed earlier in this chapter (figure 2-1).

**Shipboard Uniform Automated Data
Processing System—Aviation
SUADPS-AV(207) Support Procedures
(NAVSUP P-519)**

NAVSUP P-519 contains detailed procedures

Chapter 2—PUBLICATIONS

catalogs and publications. This section of the RTM discusses selected ASO publications.

REFERENCE SECTION (C0001)

The C0001 is an index of Navy aviation publications issued by the Aviation Supply Office (ASO). It lists the titles of publications under the distribution control of the ASO, and gives a brief description of the contents of each publication and lists the date of the latest issue.

REPAIRABLE ASSEMBLIES MODEL CODE TABLE OF NAVY AVIATION MATERIALS (C0018)

The purpose of the C0018 is to present in one inclusive listing the model codes shown in section P2300, *List of Repairable Assemblies of Naval Aviation Materials*, and to show for each model code its applicable national stock number (NSN). It is issued quarterly.

PACKAGING DATA FOR ASO AND NAVAIR REPAIRABLE ASSEMBLIES (C0030)

The C0030 lists selected packaging data for ASO NAVAIR (Naval Air Systems Command)

list for identifying replacement repairable assemblies. It is revised semiannually. P2300.

WEAPONS

The weapons section of repairable assemblies, attaching parts used on various weapons. NOT all assemblies.

SUPPORT LISTS (ER)

The ER lists of part numbers selected types.

ASO BULLETIN

The ASO Bulletin is published quarterly. It contains technical inventory management of the inventory to all activities.

in the Department of the Navy. It is designed to promulgate standardized accounting procedures. The following paragraphs contain a brief discussion of the manual paragraph numbering system and the contents of volumes II and III of the NAVCOMPT Manual.

Paragraph Numbering System

The paragraph numbering system of the NAVCOMPT Manual consists of a six-digit paragraph number and its subparagraph designator. The following is a breakdown of such a number:

Paragraph Number	<u>02</u>	<u>4</u>	<u>400</u>	<u>2b(5)(a)</u>
Volume	_____	_____	_____	_____
Chapter	_____	_____	_____	_____
Paragraph	_____	_____	_____	_____
Subparagraph	_____	_____	_____	_____

Accounting Classifications Volume II

Volume II contains explanations as to the

or master reference for the four commodity catalogs. Each of the four commodity catalogs contains an alphabetical index, a description of stock items, and a national stock number index and price list. Stock numbers should be screened against the management data list before processing requisitions for GSA items.

NOTE: In January 1983, a new one-volume GSA supply catalog is scheduled to be published.

PROCUREMENT OF PUBLICATIONS

The procurement of publications requires the AK to be knowledgeable in several areas in addition to the actual requisitioning. These include determining requirements; initial outfitting procedures; the distribution list for aeronautical publications; finding the form stock number (FSN), Navy codes, nomenclatures, and price of publications; and preparing the requisition for individual publications. These areas are discussed in the following paragraphs.

DETERMINING REQUIREMENTS

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NAVSUP, NAVCOMPT, and NAVSO Publications

These publications are distributed automatically, by the Navy Publications and Forms Center, in accordance with NAVSUP Volume 1, chapter 5. However, the activity receiving the distribution must report the quantity desired.

ASO Publications

Annually, ASO distributes an "Automatic Distribution Order Form For All ASO Publications" to activities currently on their distribution list. The activity receiving this form must place the quantity they desire in the block beside each ASO publication and forward the form back to ASO. This procedure provides automatic distribution for the selected ASO "C," "P," "SEL/WEL," and ASO bulletins for the next fiscal year. To be initially placed on the distribution list, an activity must forward a letter request with appropriate justification to ASO.

FMSO Publications

To be included on automatic distribution for

Chapter 2—PUBLICATIONS

as they are issued. It is a simple matter to compare the dates given in the publications index with the dates on the numerical index cards, if the cards are annotated as changes are made.

Publications issued by other activities are not so easily checked. If the publishing offices issue annual listings of current publications, these should be compared with publications maintained locally. Commercially published material, usually bound in hard covers, is not ordinarily revised annually and will be little trouble in this respect.

Material which is no longer useful should be disposed of locally. Unclassified material may be discarded as waste paper. Classified material should be handled as required by the latest issue of the *Department of the Navy Security Manual*

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The NAV activity under Naval Supply, additional components which perform technical direction Command missions on hand publication, tion of each c tions are review in current record command, or may be made

CHAPTER 3

FINANCIAL MANAGEMENT OF

Each year the Navy must have billions of dollars to carry out its mission. This money comes from the taxpayers of the United States as determined by the Congress.

The Navy must keep accounts to show how the money is spent. The accounts show the receipt and expenditure of public funds, the amount of government money, materials, property on hand, and the cost of all operations, broken down by projects or programs. All these functions are part of financial management. Financial management is necessary to ensure that government property and money are economically used in the public interest. Cost data assembled by projects and programs are used for budget planning and justification.

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AVIATION STOREKEEPER

3. **EXPENSE ELEMENT CODES** are codes established by DOD to classify expenses for cost accounting and reporting purposes. They are listed and defined in NAV-COMPT Manual, Volume II, Chapter 4, Part D.

4. An **EXPENSE LIMITATION** is the financial authority issued by a major claimant or subclaimant to an intermediate level of command. An example of an intermediate level of command is the Type Commander, COMNAVAIRLANT.

5. A **FIELD (SHORE) ACTIVITY** is, for purposes of RMS, a shore station that is issued an operating budget. It could be issued this operating budget by a major claimant, subclaimant, or expense limitation holder depending on who has immediate responsibility. Because it is issued an operating budget, it is also a "responsibility center."

6. A **MAJOR CLAIMANT** is a bureau, office, or command that is designated as an administering office under Operation and Maintenance Navy (O&MN), and that receives operating budgets directly from the CNO budget office

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Chapter 3—FINANCIAL MANAGEMENT

16. **THRESHOLD** is an administrative money value "ceiling" established by the fleet commander. With OPTAR accounting, aged unfilled orders below the established threshold are authorized to be "administratively canceled," and the OPTAR funds reclaimed. By the same token, unmatched expenditures below the established threshold are authorized by the fleet accounting office to be "threshold charged" by the fleet to the OPTAR without detailed review by the OPTAR holder, thereby reducing available OPTAR funds.

BACKGROUND

Prior to RMS, financial management of naval activities focused upon those materials and services that resulted in the expenditure of appropriated funds allotted to the activities. The Department of Defense (DOD) determined that management will be improved if the financing of an activity is related to the total cost of the task or mission assigned. Management will also improve if the costs are recognized and recorded against the budget at the time they occur, instead of when they are ordered or paid. The manager's flexibility to shift resources to meet changing demand will be greatly increased by the fact that

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OBJECTIVE

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steps in the management process, and figure 3-1 indicates the normal sequence of the steps in the management cycle.

Planning in Defense is concerned with developing long- and mid-range strategy and operational concepts, objectives, and requirements based on continuously projected appraisals of the world situation and on technological and intelligence forecasts.

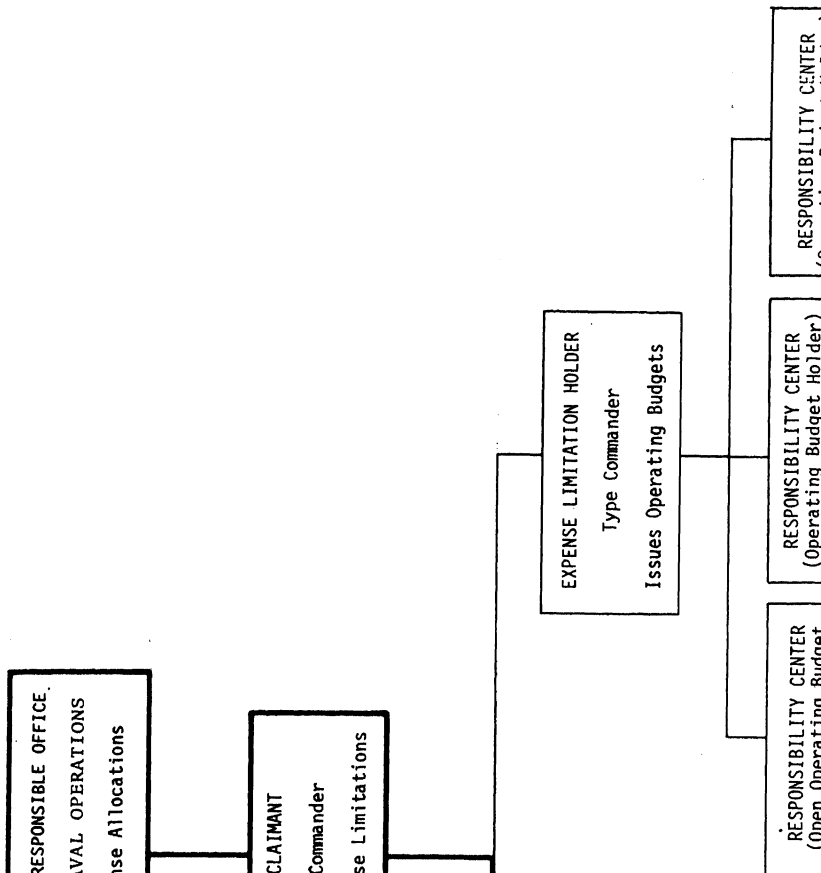
Programming is concerned with setting specific 5-year Defense goals and the schedule for achieving them, grouping functions and activities sharing the same objectives into major programs, and estimating resource requirements for each.

Budgeting is the function of formulating 1-year projections of resource requirements for programs, balancing priorities in the competition for limited resources, and obtaining associated funds. (Budget execution is concerned with program accomplishment—with the use of resources for purposes approved in the budget.)

Accounting is the function of measuring the results of performance (progress and status of programs), usually in financial terms, both for functional areas and organizational units.



Chapter 3—FINANCIAL MANAGEMENT OF



the necessary controls to maintain and prove the accuracy and propriety of transactions to include document files and related accounting records.

The FAADCs maintain records of each obligation document and, as requisitioned material is supplied and vouchers paid, match them to the expenditure documents received from the supply activities and disbursing office. The result is reported to the ship or squadron by listings prepared on data processing equipment. The listings allow the OPTAR AK to make necessary corrections to the appropriate records and to report any errors to the FAADC.

To help in the proper accounting of fleet funds held by the individual OPTAR holders, Fleet Accounting and Disbursing Centers, U.S. Atlantic Fleet (FAADCLANT) and U.S. Pacific Fleet (FAADCPAC) periodically submit several transaction listings to the fleet units for review, validation, or correction. For purposes of this RTM, FAADCLANT and FAADCPAC are referred to as fleet accounting offices.

Transaction Listings Received from the Fleet Accounting Office

The designated fleet accounting offices are the authorized accounting activities. They perform the

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Chapter 3—FINANCIAL MANAGEMENT OF I

second monthly reconciliation process. Such "above and below threshold charged" expenditures are reported to the operating target holder as part of the "differences" by the fleet accounting office on the Summary Filled Order/Expenditure/Difference Listing. Additionally, the OPTAR holder is authorized to "administratively" cancel unfilled orders when material has been received 60 days prior to the date of the Aged Unfilled Order Listing, thereby permitting recoupment of OPTAR funds on the assumption that either the expenditure has been "threshold charged," or that no expenditure document will be received. The \$100.00 value per line item has equal application in the review and validation/rejection of expenditures charged to open operating budget transactions.

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THIS REPORT WILL BE PROCESSED IN ACCORDANCE WITH PAR. 4108-3 OF NAVSO P3013.

RPT SYM \$284.04.08A

AGED UNFILLED ORDER LISTING FOR MARCH 19

FY 80 EL 702C OB 57017 OH R05504

DOCUMENT NO
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THIS REPORT WILL BE PROCESSED IN ACCORDANCE WITH PAR. 4108-3 OF

RPT SYM 5284.04.08A

AGED UNFILLED ORDER LIST

FY 80 EL 702C OB 57017 OH R05504

DOCUMENT NO	FC DOC T L	PRI	COG	UI STOCK	NUMBER	POE/5
UIC JD SN	IC NO EDR			FSC	NIIN	DATE
R05504 02940021	KE ZOA 002 20	1H	2090	003436601		
R05504 02990029	KR ZOA 002 16	1H	6250	002244963		
R05504 03040053	KC ZOA 003 13	9G	6810	005844070		
R05504 03050054	KE ZOA 003	9D	8405	002237623	POE 1	
R05504 03050055	KC ZOE 003				SUM 0	
R05504 03080064	KC ZOA 003 18	9D	7210	002908300		
R05504 03090066	KD ZOA 003 18					
R05504 03100068	KR ZOA 003 16	1H	3835	001451031		
R05504 03110069	KC ZOE 003				POE 1	

END OF

REQUISITION FORM 2100 (Rev. 2-71) (7000)
1-70 (STANDARD FORM 2100)

REQUISITION/OF

DATE	SYMBOL	STOCK NUMBER	DESCRIPTION	PR	SUPP ADDRESS OR DEPT	QTY ON ORDER	DATE MAT'L REC'D	INCREASE OR DECREASE	TE
11/20	0205 0028	408093 1237623	AD CANG 06/81						E 157

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Chapter 3—FINANCIAL MANAGEMENT OF

3. The issuing activity has failed to forward an expenditure document.

Items appearing on the Aged Unfilled Order Listing meet the criteria shown in the following paragraphs:

Material Received More Than 60 Days (Below Threshold).— Below threshold items appearing on the listing which have been received more than 60 days prior to the processed date of the listing must be reviewed in the same way as those mentioned above. Extra care should be taken to ensure the item is not a partial receipt with a valid required quantity outstanding.

If the material or services are found to be received more than 60 days prior to the processed date of the listing, the unfilled order is administratively canceled. When an item on the listing is administratively canceled, it is assumed that:

1. An expenditure document has already been threshold charged against the OPTAR because the expenditure was received at the fleet accounting office before the unfilled order.

credit is applied at this time.

Items Received Above Threshold) (Material shown on the listing received and is administratively canceled "CANC" for threshold items immediate impact on OPTAR. A credit (3-4) is prepared identical to the unfilled order in mission to the fleet OPTAR Document COMPT Form order is prepared the Requisition

1. In the "Unfilled order entered month and year

2. In the description/OPTAR location "AD CANCELED" listing

AVIATION STOREKEEPER

THIS REPORT WILL BE PROCESSED IN ACCORDANCE WITH PAR. 4108-6 OF NAVSO
 RPT SYM \$284.04.08A
 FY 80 EL 702C OB 57017 OH R05504
 SUMMARY FILLED ORDER/EXPENDITURE DIFFERENCE

DOCUMENT NO	FC DOC	TL	NO	PRI	BILL/SUP	AD	UI	COG	STOCK	NUMBER A
UIC	JD	SN	ID	ISS	ACT	I	D	VO	NO	NIIN C
R05504	02940021	KE	ZOA		002	20				
R05504	02940021	KE	ZJ1		00638	0315				
R05504	02940021	KE	ZOA		002	20				
								1H	2090	00343660
								1H	2090	00343660
								1H	2090	00343660
R05504	02990030	KR	ZOA		002	20				
R05504	02990030	KR	ZJ1		00638	0315				

R05504 02990030

SUMMARY FILLED ORDER/EXPENDITURE DIFFERENCE

RPT SYM \$284.04.08A
 FY 80 EL 702C OB 57017 OH R05504
 SUMMARY FILLED ORDER/EXPENDITURE DIFFERENCE

DOCUMENT NO	FC DOC	TL	NO	PRI	BILL/SUP	AD	UI	COG	STOCK	NUMBER A
UIC	JD	SN	IC	ISS	ACCT	I	D	VO	NO	NIIN C
R05504	10360120	KR	ZOA		013					
R05504	10360120	KR	FX1		805	1270	24096			

R05504 10380128 KC ZOE
 R05504 10380128 KC FX1

UNFILLED ORDERS

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Chapter 3—FINANCIAL MANAGEMENT OF R

SUMMARY FILLED ORDER/EXPENDITURE/DIFFERENCE LISTING.—The Summary Filled Order/Expenditure/Difference listing (figure 3-5), is submitted monthly to OP-AR holders for each OPTAR held. The listing

is a report of all of \$50.00 or more made from the TAR log before office.

THIS REPORT WILL BE PROCESSED IN ACCORDANCE WITH PAR. 4108-6 OF NAVSO P-3013.

RPT SYM \$284.03.08A

SUMMARY FILLED ORDER/EXPENDITURE DIFFERENCE LISTING FOR

FY 81 EL 702C OB 57017 OH R05504

DOCUMENT NO FC DOC TL NO PRI BILL/SUP AD UI COG STOCK NUMBER A POE/SUM QTY

R05 RPT SYM \$284.03.08A SUMMARY FILLED ORDER/EXPENDITURE DIFFERENCE LIST F

FY 81 EL 702C OB 57017 OH R05504

R05 DOCUMENT NO FC DOC TL NO PRI BILL/SUP AD UI COG STOCK NUMBER A POE/SUM C
R05 UIC JD SN IC ISS ACT ID VO NO FSC NIIN C DATE

R05 R05504 10360120 KR ZOA 013 9Q 7110 002050821
R05 R05504 10360120 KR FX1 805 1270 24096

R05 R05504 10380128 KC ZOA 014 9Q 8010 002869083
R05 R05504 10380128 KC ZJ1 00244 0339 9Q 8010 002869083
R05 R05504 10380128 KC ZJ1 00638 0345 9Q 8010 002869083

R05 UNFILLED ORDERS FILLED ORDERS PART ORD ESTAB DIFFERENCE MATC

R05 FC KE DIF 89.66CR
R05 FC KR DIF 406.94
R05 OTHER DIF 274.12

OH \$ VALUE 1,168.91 2,625.57 154.00 591.40
OH RECORDS 15 27 3

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Total differences, by fund code, must be accepted by the OPTAR holder upon receipt of the listing. If a difference is considered to be invalid, you should annotate the transaction on the listing with a rejection code taken from NAVSO P-3013-2, paragraph 4108-6d. Rejections found to be valid by the fleet accounting office are reversed and a correction will appear on the next summary list. Differences of \$1,000 or more are manually researched by the fleet accounting office before being reported to the OPTAR

RPT SYM \$284.03.08

DETAIL FILLED ORDER/EX

FY 81 EL 702C OB 57017 OH R05504

DOCUMENT NO	FC	DOC	TL	NO	PRI	BILL/SUP	AD	UI	COG	STOCK
UIC JD SN	ID	ISS	ACT	I D						FSC
R05504 02940021	KR	ZOA		002	20				1H	2090
R05504 02940021	KE	ZJ1		00638	0315				1H	2090
R05504 02940021	KE	ZOA		002	20				1H	2090
R05504 02990029	KC	FX1		805	0870	P6702				
R05504 02990030	KR	ZOA E		002	20				1H	2090
R05504 02990030	KR	ZJ1		00638					1H	2090
R05504 03010052	KC	ZOA D		002	18				9Z	9535
R05504 03050054	KE	ZOA		003	16				9D	8405
R05504 03050054	KE	ZJ1		00638	0315				9D	8405

Chapter 3—FINANCIAL MANAGEMENT OF RE

accounting office also prepares a Detailed Filled Order/Expenditure/Difference Listing monthly. This listing itemizes all matched unfilled orders and expenditures (regardless of difference), threshold and direct charged expenditures, corrections, and administrative cancellations of low threshold unfilled orders. It represents the complete reconciliation of unfilled orders and expenditures for the accounting period. Figure 3-7 illustrates a Filled Order/Expenditure/Difference Listing for a fleet unit. This monthly listing is retained by the fleet accounting office on microfilm or other media. Refer to NAVSO P-3013-2, paragraph 4108-5c for requesting a particular copy of the detailed Filled Order/Expenditure/Difference Listing.

OPERATING TARGET (OPTAR)

The term “operating target” (OPTAR) is defined as an estimate of the amount of money which will be required by an operating ship, staff, squadron, or other unit to perform its assigned tasks and functions. Record keeping for the OPTAR is maintained on the OPTAR log.

The OPTAR log (NAVCOMPT Form 2155) is like your personal checkbook. Both start with the amount of money that you have available and

commander. The net (\$) amounts, is not. The OPTAR AK must be maintained in the OPTAR log with the accounting officer's letter). All correspondence is retained on file. The accounting office maintains the OPTAR log as well.

DAY-TO-DAY-ST

Each ship, aviation squadron, or other unit issued an OPTAR log to show the effective use of funds and effective use of funds. The effective use includes accounting and reporting. NAVSO P-3013 requires the type commander. For the squadron commander to know the financial status of the unit. In a squadron, the commander submits a locally prepared OPTAR log on a daily basis. This is the OPTAR log.

REPORTS

Reports to be maintained in the AK2 D

CHAPTER 4

STORAGE

“Storage” is defined as the keeping or placing of property in a warehouse, shed, or open area; or the state of being stored. “Stowage” is synonymous with storage, but it is the term most often used afloat.

The Navy has many storage problems due to the wide variety of material stocked. A station or ship stocks virtually all the types of material which are stocked and sold within a medium-sized city. A ship or station with 2,000 to 5,000 personnel aboard has a population equivalent to that of a fairly large community.

The Aviation Storekeepers' (AK) duties normally involve caring for aviation stores. They perform other duties, as necessary, under the direction of the storage officer. This often involves the receipt, storage, and shipment of

in their custody. Precautions to ensure that materials are not lost or damaged by fire, corrosion, breakage, etc., must become a general and specific responsibility for the material

S

Uniform technical operating procedures and terms making material handling and storage a Defense Regulation associated with

7. Bin storage space. Area in which bins have been erected. This space includes the aisles and working space between the bins.

8. Block storing. Storage of similar containers or material in a block.

9. Bulk liquid storage space. Space inside tanks designed for the storage of liquid bulk.

10. Bulk storage. Storage in warehouses of any large quantity of supplies usually in original containers; or storage of liquids or solids such as coal, lumber, rubber, bales, petroleum products; or ores in tanks or piles.

11. Caged storage. Storage space segregated within a building and specially screened or barricaded to prevent pilferage or to isolate hazardous materials.

12. Chill space. Refrigerated warehouse area in which the temperature can be controlled between 36 °F and 46 °F (2 °C and 8 °C).

13. Controlled humidity (CH) warehouse space. Space which has been especially prepared for and equipped with equipment for control of humidity.

14. Corner marker. A conspicuous marker placed at aisle intersections as a caution to personnel to prevent bumping stacks or other fixed objects.

15. Covered space. Area within any roofed structure

Chapter 4—STORAGE

37. Magazine. Area in a warehouse-type structure above or below ground designed for storage of ammunition and explosives.

38. Main aisle. A passageway wide enough to permit the easy flow of equipment, supplies, and personnel. It generally runs the length of the building.

39. Mezzanine. Area provided by the construction of an intermediate or fractional story between any floor and ceiling of any building used for storage operations.

40. Net storage space. Gross space for storage operations minus gross space used for aisles, structural loss and support space.

41. Net weight. The weight of the contents, not including the container.

42. Noncombustibility. Materials and their packaging which will neither ignite nor support combustion.

43. Nonperishable items. Items which do not require refrigeration during transportation and storage.

44. Open space. Improved or unimproved area designated for use in storing material.

45. Open improved space. Area which has been graded and hard surfaced or prepared with paving of some suitable material so as to permit effective material handling operations.

54. Rack space. Space for box pallets, or pallets installed when such aids, identified as rack space, distinguished from other storage space.

55. Radioactive material. A combination of man-made and natural elements which emits ionizing radiation. Includes natural elements such as uranium and produced radionuclides.

56. Rail storage. Storage for the purpose of storing material.

57. Ramp. An inclined plane between different levels.

58. Receiving. The receipt of supplies. It includes the receipt of document processing equipment.

59. Receiving area. Area for inspecting, and preparing new procurements and materials to storage areas.

60. Rejection. The rejection of material.

61. Rewarehouse. The movement of material within the same storage area.

62. Shipping area. Area for material pending shipment.

63. Storage. The receipt and storage in a warehouse of material.

After the initial layout is completed, each storage space may be considered and planned as an independent area. The problem is then simplified so that each space becomes easier to arrange than an office. In the following discussion, it is assumed that the space available is firm and that your aim is to improve the use of the area assigned to you.

FACTORS OF LAYOUT

Most of the material stocked by any activity handling aviation stores consists of peculiar aircraft spares which are relatively easy to stow. Some items present a little more trouble, due to their physical characteristics, than others. To prepare a good layout, you need to have a rough idea of the amount and kind of supplies which require special storage conditions. As these types of material and their designated storage spaces are defined and listed, you may separate them from the main body of the problem and consider each as one isolated problem.

Basically, the five factors to be considered regarding layout for the storage of material are usage rates (popularity), similarity, size/weight, characteristics, and capacity of the storage facility.

Chapter 4—STORAGE

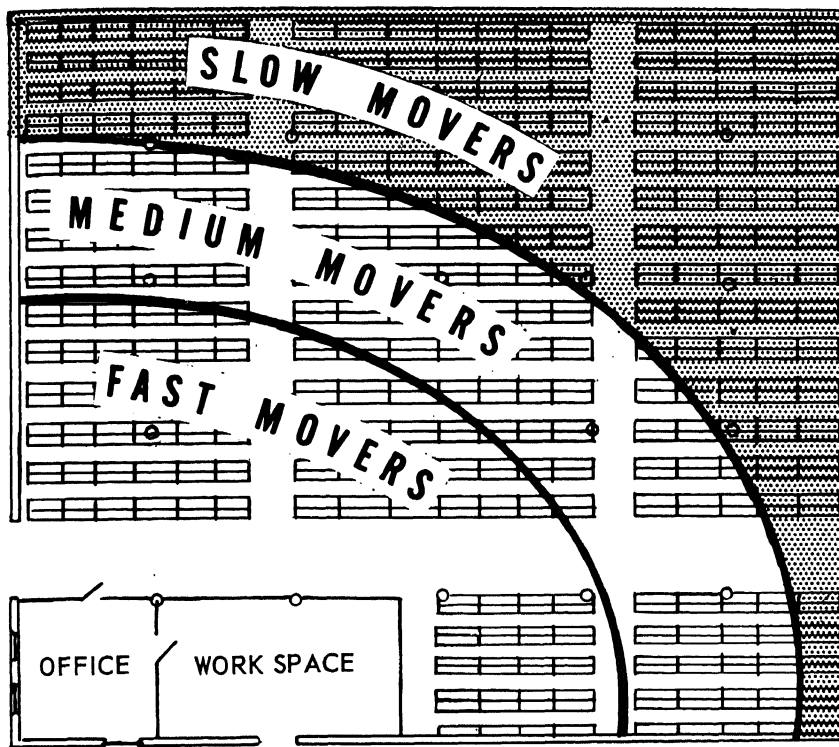


Figure 4.1 Storage by usage rate

be stored will be known. It is a matter of storing the material in the warehouse or storeroom in accordance with an organized plan which takes into consideration working areas, storage aids, and aisle arrangements. Layout plans are made as an aid for storing materials.

Warehouse Planograph

A planograph is a drawing of the actual floor layout of each storage structure or outside storage area. The planograph shows the manner in which the gross space within a storage structure or outside storage area is subdivided. These subdivisions can be for such functions or uses as storage areas, shipping and receiving areas, main aisles, working aisles, lockers or restrooms, and offices.

When making floor layouts, a floor plan (planograph) of each area should be prepared. All obstacles such as columns, stairwells, elevator shafts, offices, and washrooms should be shown. The location of shipping, receiving, and retail bin areas should be determined in the order of their importance and desired proximity to fixed handling equipment and other building facilities. These areas should also be sketched on the planograph. Figure 4-2 is an example of a planograph.

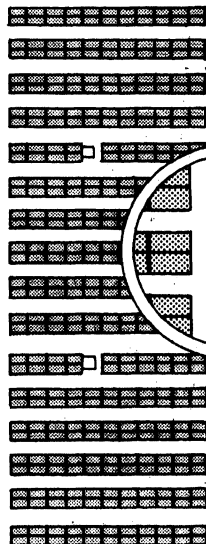
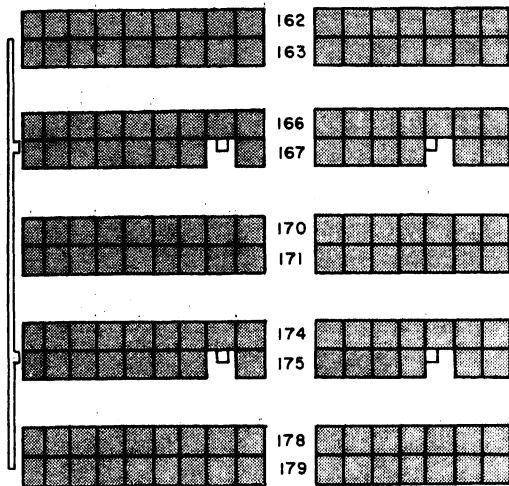
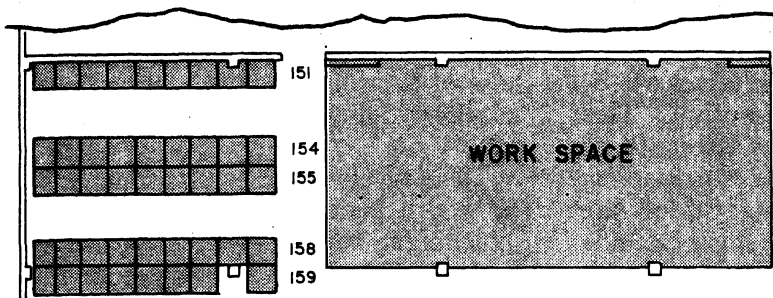
Normal building location a side in large outside. Working total equip ing a

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Chapter 4—STORAGE



publications can be consulted, and material may be opened for examination.

Under NAMP procedures, most issues will be made at designated delivery points. This eliminates, to a great extent, the necessity of providing an issue area in the storerooms; however, adequate space and facilities are required at the delivery points. The flight clothing storeroom will continue to require an issuing area.

3. Shipping and delivery. Ashore, space must be set aside for the temporary accumulation of material which will be shipped or delivered. Local considerations, such as the volume of material shipped, the amount of material delivered, and the frequency of trips determine how much room is needed.

Afloat, the usual course is to leave the material in the storeroom until the ship is ready to transfer or offload it. An area must be provided for accumulation of non-RFI aeronautical components beyond AIMD capabilities requiring shipment to DOP. Expeditious processing of these components and maximum use of parcel post will minimize this space requirement. In addition to wasting valuable shipboard space, an over-

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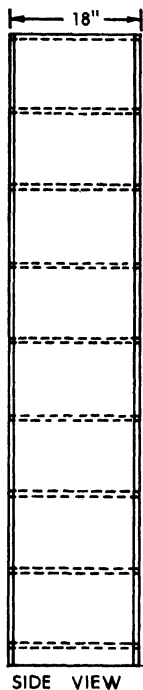
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Chapter 4—STORAGE

accommodated in this way. Local fabrication of special units is the usual procedure. Plain steel racks that have adjustable platforms and retention bars may be procured during a yard period for a ship, or they may be procured on contract ashore.

4. Standard-type shelving. Several types of steel shelving, which differ only in minor details, are available at fairly reasonable prices. GSA contracts are in effect for many of them. Most of these shelves can be installed any desired distance apart. They are usually sold in modular units which can be connected to make the required length. Shelves are useful ashore for storing almost anything handled by hand in small quantities. Normally, they are not used afloat due to the difficulty of securing the material properly. The standard $87 \times 36 \times 18$ inch sectional type with shelves every 12 inches is the most adaptable unit available for bin storage. (See figure 4-3.) Shelf units also come in 99-inch heights. Figure 4-4 illustrates typical shelf box arrangements with the standard shelving.

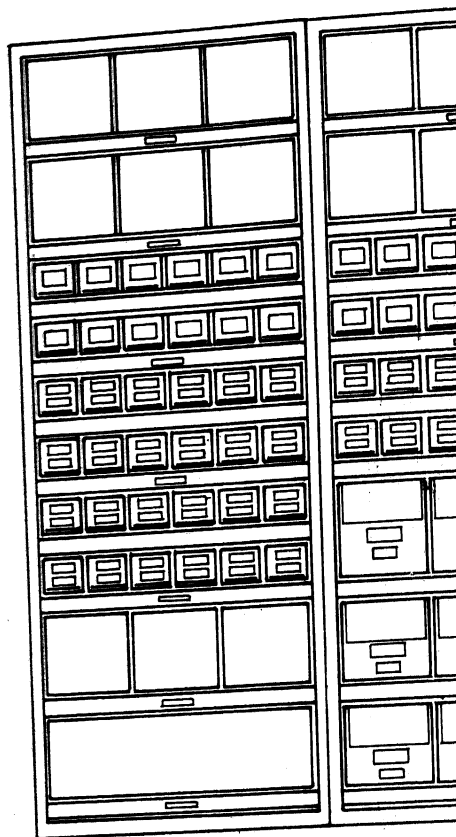
5. Shelf boxes. Shelf boxes provide the most flexible arrangement and efficient use of shelf space. They afford better use of shelves by providing retainer walls on four sides of the



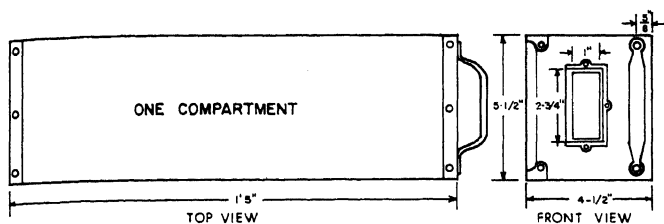
Figure

11 1/4 inches

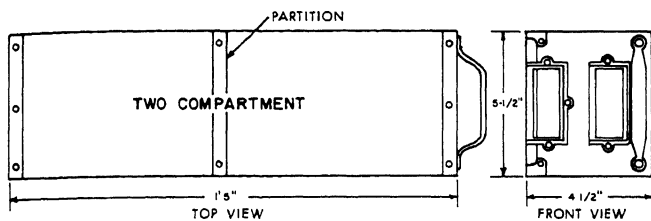
AVIATION STO



Chapter 4—STORAGE



ITEM I



ITEM II

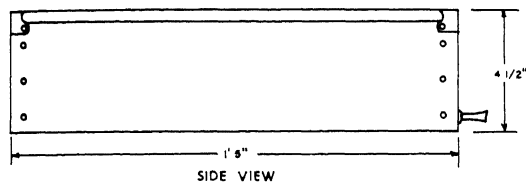
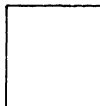
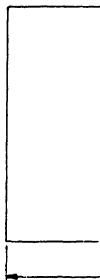
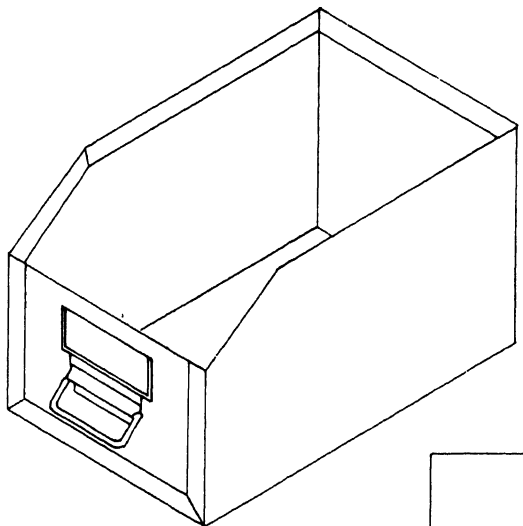
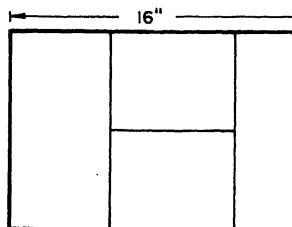
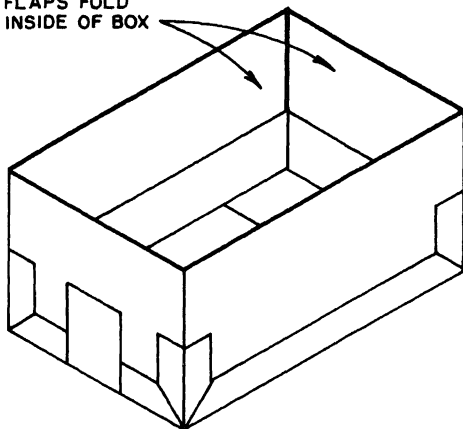


Figure 4-5.—Shelf box, small, one and two com

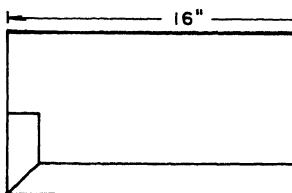


Chapter 4—STORAGE

FLAPS FOLD
INSIDE OF BOX



TOP VIEW



SIDE VIEW

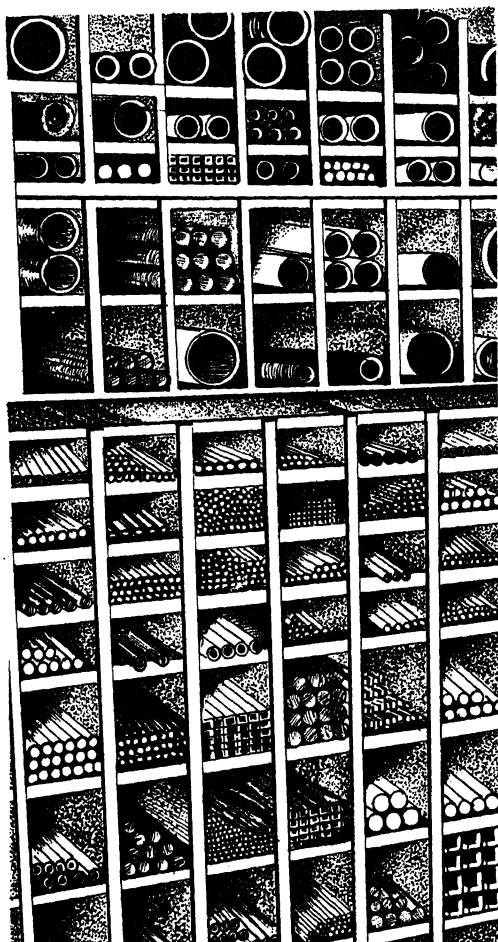
NOTES

SPECIFICATIONS: SHELF BOX, LARGE CORRUGATED IS MADE UP FROM A REGULAR BOARD BOX.

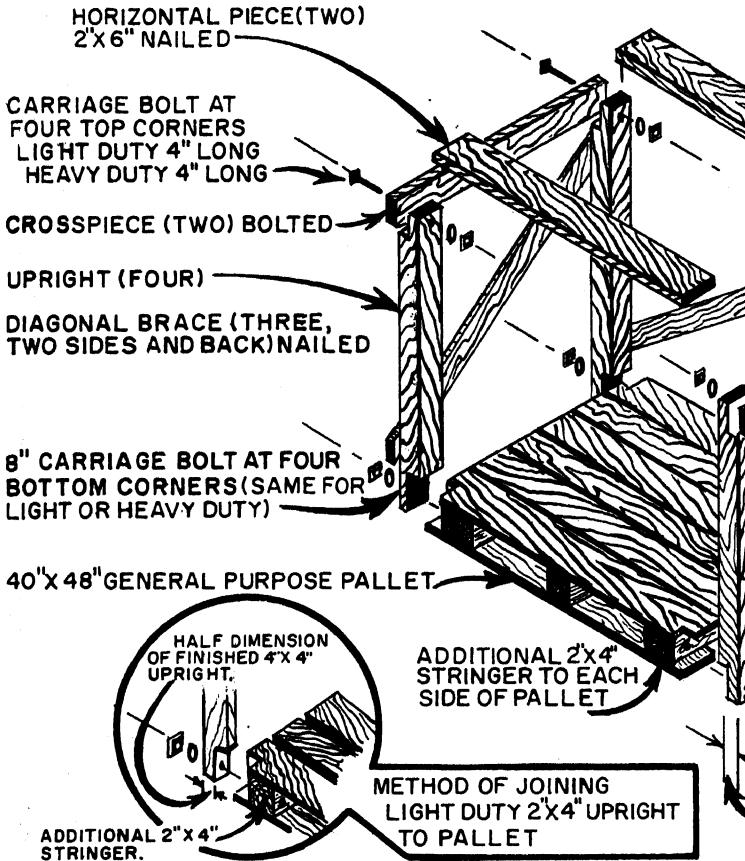
APPLICATION: THIS TYPE SHELF BOX IS USED FOR LIGHT WEIGHT MATERIALS. BULK STOCKS SHOULD BE PACKED IN THIS BOX TO FACILITATE TRANSFERS. THE FLAPS SHOULD BE TURNED IN WHEN USED TO MAINTAIN SALVAGE VALUE.

Figure 4-7.—Large corrugated fiberboard box.

AVIATION STORY

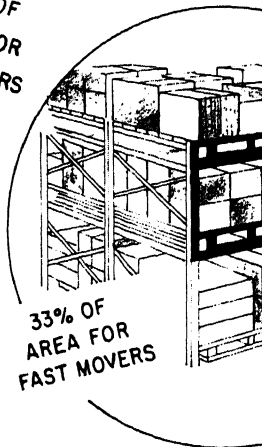
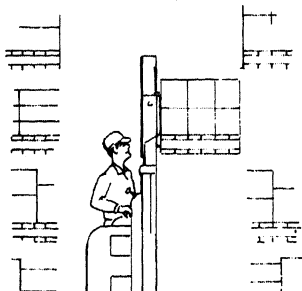
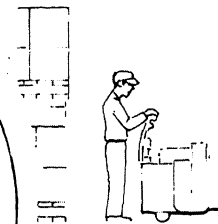
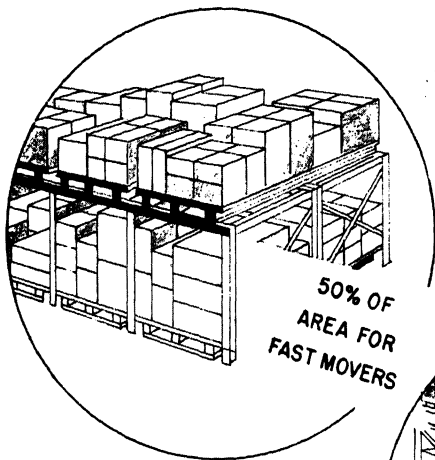


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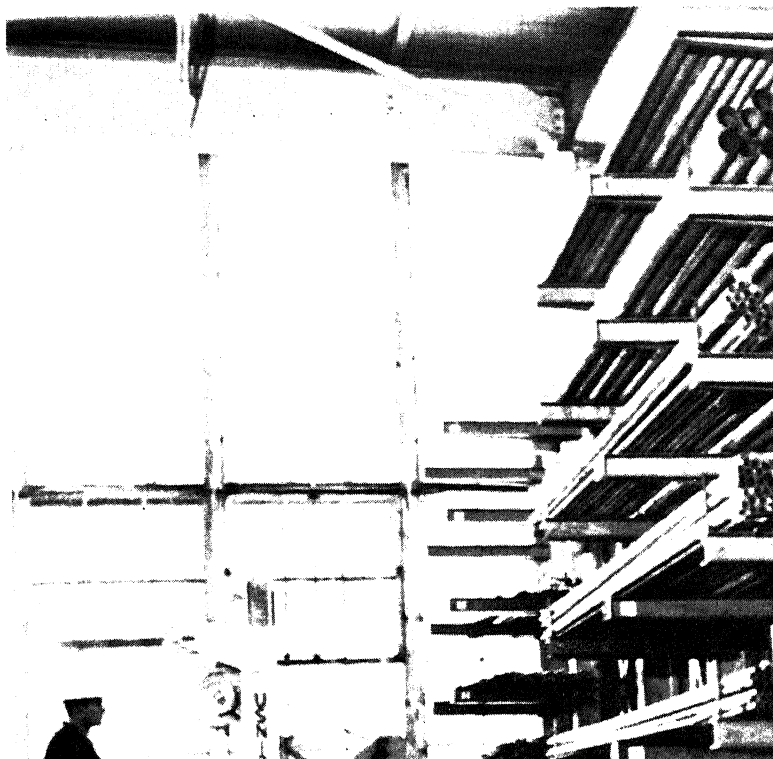


AVIATION STORE

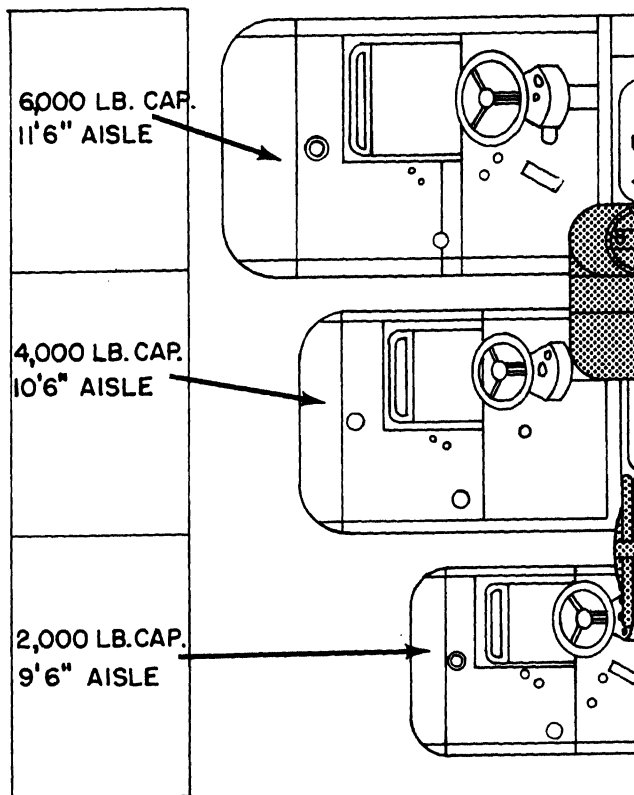
GENERALLY 90% OF THE ACTIVITY
IS IN 15% OF THE ITEMS



Chapter 4—STORAGE



AVIATION STORE



Chapter 4—STORAGE

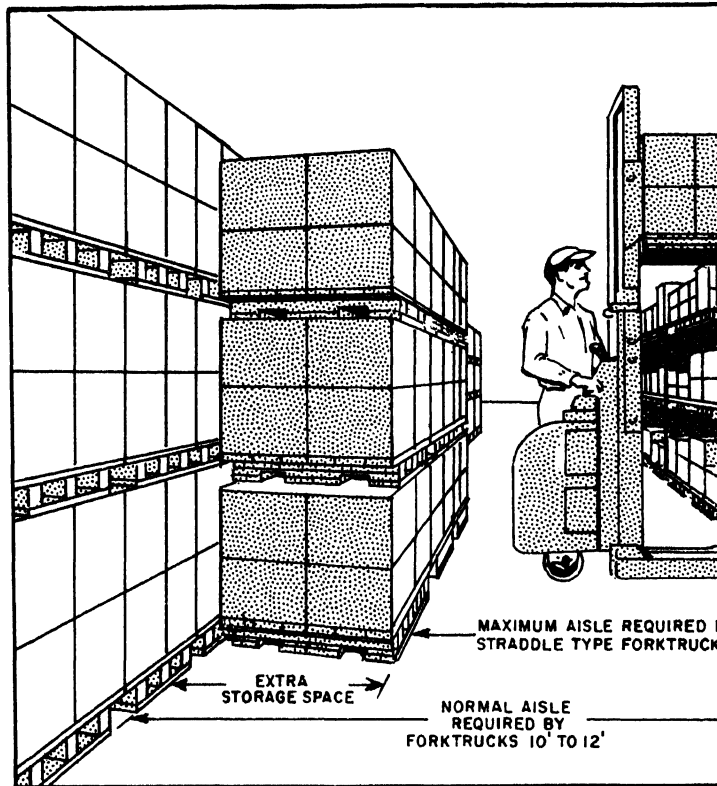


Figure 4-13.—Narrow aisle fork truck in a 6-foot

AVIATION STORE

available for net storage purposes: the location, number, and size of warehouse doors; availability and size of cranes; floor loads; size and location of platforms and ramps; height of ceilings; and the location and capacity of elevators. Discussion of the commodity factor should include consideration of capacity by volume as well as by weight. Many types of building construction at various military activities are not conducive to good storage. Most of the warehouses have some good features, but are lacking in other respects.

GENERAL STORAGE PROCEDURES

Planning and layout of a warehouse or storeroom were discussed in the previous section of this chapter. This section discusses locator systems for material once stored, assignment of space for storage, use of storage space, the checking of stores and spaces, and the use of equipment in storage operations.

STORAGE LOCATOR SYSTEMS

Whether afloat or ashore, the task of finding one particular item among thousands cannot be

Chapter 4—STORAGE

determined on the basis of bin replenishment requirements and the size of a single package. The use of 75 percent of space within openings, determined on the stock level to be carried, is considered adequate.

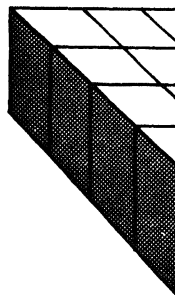
STORAGE METHODS.—Shelf storage should begin at the back and extend toward the front. In setting up shelf stock by location, empty shelf spaces for expansion should be provided for new items or changes in quantity requirements. Small loose items may be repacked in sacks, paper bags, or small boxes so that accurate issues and inventories may be made. When replenishing retail bins, identification markings of individual items should be placed toward the opening.

Bulk Storage Practices

Bulk storage consists of those items which are usually received and stored in carload or truckload quantities. This type of material presents few layout problems and permits the greatest possible use of available storage space. Large lots of material are stored on pallets. Material is withdrawn from bulk storage by rows rather than across the front of the stacks. This prevents

bins around the insurance items of a new item n several items in item in its prop federal stock numbers) the H

At the prese one which is de tions. The syst popularity of principal co characteristics



Demand should be considered on two levels. On the first level, the system should attempt to stow material as close as possible to the principal consumers. Remember, supply department personnel will move material into the storeroom or warehouse on a wholesale basis, while the consumers will draw it out in small quantities. A slight inconvenience to supply might be offset by many hours saved by maintenance personnel. On the second level, the demand of the item should be compared only with that of the other items in the same storeroom or warehouse. The fastest moving items should be stowed nearest the issue counter. The physical characteristics of the material will naturally affect the storage assignment. This aspect of stowing various materials is discussed in another section of this chapter.

Stowage afloat presents several problems not encountered ashore. There are periods during which most of the stowage spaces may be entered only on an emergency basis. This requires a fairly wide range of material to be carried in ready issue, at least, in limited quantities. Space is limited and the stowage AK must rely on past experience and good judgment to stow the necessary materials in the available facilities. In addition, the proper levels of temperature and humidity are often impossible to achieve.

As a supervisor, your job will be to balance the demand, physical characteristics of the

Chapter 4—STORAGE

DEFINITIONS.—The following definitions apply to the shelf life program:

Shelf Life Action (SLA) Codes. These codes are assigned to shelf life items to specify type of inspection, test, or restorative action required when the items have reached the end of initial storage period. These codes also specify extension of the shelf life period after test or restorative action has been taken. A complete listing of these codes can be found in NAVSUP P-437, Appendix 9, and NAVSUP P-437, Appendix 7.

Shelf Life (SL) Codes. These codes denote the life span of the material from the date of manufacture to the date of required disposal, or date of test for continued usefulness. Shelf life codes, and their definitions, can also be found in NAVSUP Publications 485 and 437.

Shelf Life Item Types. There are two types of shelf life items. They are explained in the following subparagraphs:

a. **Type I.** This type applies to those items having a definite (nonextendable) storage time limit terminated by an expiration date.

b. **Type II.** This type applies to those items having an assigned shelf life period which may be

5. **Overage.** The condition of items describing those items which have expired.

BACKGROUND. The purpose of the shelf life program is to ensure that all shelf life material is properly stored and none are satisfied. The program activities rely upon the following: up items which will be used in the next inventory. Color-coded tags in white and yellow are used to identify different quarters of the year for inventory activities maintained in the inventory records. These cards are used to call individual items for inventory activities insert the items in the stock location. The inventory check all shelf life items for overage prior to the inventory. Items are then re-

Any system that is considered satisfied.

1. Identifies the receipt.

Hazardous Items

Extreme care must be exercised in the handling and storage of hazardous items. NAVSUP P-4500, *Consolidated Hazardous Item List*, lists hazardous items and items prohibited aboard ship. The storage chapter in AK3, NAVEDTRA 10393, identifies specific hazardous commodities and lists safety precautions for those commodities.

The storage supervisor should ensure that storage personnel are familiar with the safe storage and handling practices for items carried in stock. Identification of hazardous items carried aboard ship can easily be made a part of the training program.

Special Problems Afloat

The AK who knows storage realizes there is no such thing as stowed and forgotten material. There are many different things which must be taken into account in storing different kinds of material. The size and weight of items, conditions of heat and humidity available and required, accessibility, and the attractiveness of the material for unauthorized uses must be carefully considered.

The more important of the problems afloat are discussed in this section. These elements are

Chapter 4—STORAGE

a variety of shapes. Each presents a special problem in handling and securing the item so that it cannot shift and so it will not likely be damaged by movement of other material. The very large radomes are normally secured by straps on the overhead of the hangar deck or stored in the gun tubs or on a sponson.

Some ships store their large surfaces or radomes ashore in their area of operations to lessen the possibility of damage on board ship.

When needed cargo aircraft

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surfaces are e
steel decks o
radomes are e
Extreme care
into storeroom

CHAPTER 5

STOCK CONTROL

A supply department cannot function properly or perform its assigned mission without continuously exercising some type of control. Control, in its varied forms within a supply department, is of extreme importance to the AK. One form of continuous control in a supply department is the processing of receipt and expenditure documents against the stock records by the control division.

The control division is the largest clerical division of a supply department. Control in the supply department is exercised and maintained in the control division through the clerical aspect. Senior AKs must be able to organize, recognize responsibilities, and know the functions of the control division.

Most shore activities are staffed by civilians:

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Issue Section

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In this section, t
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customers; and t
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Special Program

receipt control branch makes follow-up action to the contractor. It furnishes this information to the requisitioners.

PURCHASE BRANCH

The purchase branch is responsible for placing orders/contracts for material that is not available in the supply system. The buying and order section of the purchase branch may be organized into units if the purchase volume makes this further subdivision necessary. Chapter 6 of this RTM covers purchasing in detail.

STOCK CONTROL AFLOAT

Stock control is the nerve center of an afloat supply department. This statement is particularly true for aircraft carriers operating under the Shipboard Uniform Automated Data Processing System (SUADPS-AV-207). Under SUADPS, stock control personnel control all input to the computer system by the maintenance of manual files, by the handling and coding of all source documents, and by ensuring that all supply documents result in input to tape files. On the basis of this input, the computer is able to

Chapter 5—STOCK CONTROL

STOCK CONTROL FUNCTIONS

As mentioned previously, SUADPS does not state detailed organization and layout. There are duties and functions that have to be performed by stock control personnel. Whether you, as an EIC, are assigned to one or several functions depends on your particular situation. Variables, such as deckload, line items carried, and number of personnel assigned, affect the assignment of duties within stock control. Stock control functions relating to SUADPS are discussed in the following paragraphs.

Updates

The update is the focal point of SUADPS. A SUADPS update is a computer process in which accumulated supply transactions are applied to system tape files and output is produced. Stock control, in conjunction with the system coordinator, controls updates by specifying input to the computer. Input for an update consists of typewritten documents processed by stock control and accumulated in the update file, system-generated tapes, or magnetic tapes received from external sources, such as change notices and fleet control lists.

Transfers

Transfers from one location to another are made on the basis of an activity report or activity sheet. After the transfer is completed, the expense is recorded in the stock control. Carrying out the correct document. The document. The document. The financial report is posted.

Surveys

Surveys of stock control storage personnel are conducted through survey requests in accordance with instructions.

Inventories

Stock control request forms to take inventories as desired to produce inventory accomplishing inventory basis desired, including division. Inventory

Financial Reports

SUADPS has practically eliminated manual record maintenance and the manual preparation of financial reports. All internal and external records and reports, except for the Flying Hour Cost Report and the OPTAR Document Transmittal Report (NAVCOMPT Form 2156), are prepared by the computer. In most cases, the computer-prepared reports require no action by stock control other than obtaining the signature of the reporting officer prior to transmittal. It is the responsibility of stock control to establish internal controls to ensure the reports are generated as required. Stock control personnel must submit a request for data processing forms to the system coordinator when financial reports are required.

Management Reports and Aids

In SUADPS, numerous management reports and aids are available to stock control personnel. One important aid is a file inquiry capability which obtains information on a given stock number from the Master Record File (MRF) or obtains the latest status on a given document number from the Requisition File (RQN). Some other aids and reports available to stock control are the ability to review stock requirements before

Chapter 5—STOCK CONTROL

TERMINING FACTORS

Support requirements are determined by several fundamental factors. Among these are the following:

1. The level of maintenance to be performed.
2. The types of aircraft to be supported and the interchangeability of parts.
3. The number of projected flight hours.
4. The stock endurance objective.

These factors influence the quantities listed in fitting and allowance lists. They are, in turn, affected by usage experienced by the supporting activity and by the squadron.

Maintenance Level

Overhaul, repair, and maintenance of nautical weapons and weapons systems are performed within the broad guidelines of three levels of maintenance—depot, intermediate, and organizational. A list of aircraft maintenance actions classified to maintenance levels is provided in OPNAV Instruction 4790.2 (Series). As an AK, you should have a general understanding of what each level of maintenance can

available in organizational activities. Incorporation of changes and modifications into capabilities is also a part of maintenance.

ORGANIZATIONAL

The classification of maintenance is applied to those normally performed on a day-to-day basis. Organizational-level maintenance is grouped under the

1. Aircraft inspection
2. Aircraft servicing
3. Aircraft handling
4. Aircraft maintenance removal and replacement and component replacement
5. Aircraft servicing
6. Necessary repairs peculiar to maintenance.

Most squadrons perform level maintenance.

CHANGE OF M

used or allowed. These must be turned in. The change directive contains instructions for disposition of material no longer required. The equipment is normally transferred to another activity for use.

Aircraft Types and Equipment Supported

The Aviation Storekeeper doing stock control work must stay informed about the aircraft for which support is being provided. The AK must know the following information at all times.

1. The type and modification of aircraft and the quantity of each.
2. The bureau numbers of all aircraft.
3. Engine types and modifications and quantities of each.
4. Every type of electronic equipment installed in the aircraft and the quantity of each type.
5. The type and quantity of test equipment required for the aircraft and its components.
6. The kind and quantity of handling equipment required.
7. The kind and number of starting and towing vehicles used.

Chapter 5—STOCK CONTROL

craft carrier. This section discusses AVCAL procedures by explaining the AVCAL schedule, applicable type commander's responsibility, NAVAVNLOGCEN Detachments East and West responsibility, ASO's responsibility, the ship's responsibility, the AVCAL publication and supply aids, and the AVCAL review.

AVCAL Schedule

The AVCAL outfitting directive schedule is an instruction of actions required by applicable activities in relation to the number of days prior to embarkation of a Carrier Air Wing (CVW) on board an aircraft carrier.

Type Commander's Responsibility

The functions of the applicable air type commander concerning the outfitting of an aircraft carrier are most important. These functions are as follows:

1. Issue outfitting directives for aircraft carriers specifying aircraft and engine models, the numbers of each model to be supported, monthly flying hours for each aircraft model, actions required of activities involved in outfitting/

planned deckload, and the type commander's responsibility.

2. Processes and issues the demand frequency from the ship against the AVCAL and provides the supply aids to the type commander and the ship.

3. Introduces the ship into the supply system.

Ship's Responsibility

Although the ship's responsibility may lead to the type commander's responsibility, the type commander is required for outfitting the ship to be outfitting responsibilities which are outlined in paragraphs.

DEMAND

DATA.—When the ship provides the tape for all aviation demands, on order demands were ex-

14. Previous AVCAL quantity (SUADPS activities).
15. Date established (SUADPS activities).
16. Nomenclature (SUADPS activities).

The letter of transmittal which forwards these cards or tapes to ASO should also indicate the inclusive dates for which the demand data was collected and the number of days of flight operations included during that period. Material

CHAPTER 6

PURCHASING

Most AKs serve their entire career without being directly involved with purchasing. Others might serve as the imprest fund cashier for an air station. Regardless of whether AKs serve in a billet involving purchasing, the AK2 needs to have a good understanding of the purchasing procedures. The material presented in this chapter is not intended to be comprehensive enough to be used as a reference. There is no known way in which *Naval Purchasing*, NAVSUP Pub 467, plus parts of other volumes, and the numerous instructions and regulations relating to purchasing can all be condensed into a single readable chapter. For most AKs, the coverage in this chapter is adequate. For those AKs whose duties involve purchasing, in whatever capacity, the applicable provisions of the NAVSUP Manual, along with

supplies and services from the Government. The same as buying, the acquisition of classified information

a. A contract (at least confidential) if the contract itself is classified

b. A contract because the contract information, item

c. A contract under the contract of classified information

6. Contracting officers. These are government officials (civilian or military), who by virtue of their position or by appointment, are authorized to bind the Federal Government in contracts. A government contracting officer acts as an agent for the government. For information about the different types of contracting officers, refer to NAVSUP Publication 467.

7. Delivery order. This is a contractual document issued by a contracting or ordering officer under an existing contract. A delivery order automatically incorporates all the terms and conditions in the basic contract. The delivery order is issued on DD Form 1155.

8. Small purchases. Small purchases are those open-market buys of \$25,000 or less which are processed as simplified purchases. They include use of the blanket purchase agreement method, purchase orders, imprest fund purchases, and over-the-counter SF 44 purchases.

9. Subcontractor. This is a private, nongovernment party who has entered into a subcontract with a government contractor. The term usually means subcontractors, their subcontractors, and so on—usually expressed as subcontractors at any tier or level. It should be noted

Chapter 6—PURCHASING

ent, by issuance of changes, *Field Purchasing* NAVSUP Publication 467. This NAVSUP publication is commonly referred to as the "467." 467 establishes the contracting authority and responsibility of NFCS activities. It also gives detailed requirements for appointing contracting officers and establishing contract review boards. There are additional instructions and directives that affect purchasing efforts. But, note that the FAR carries the force and effect of Federal law.

Standards of Conduct

All personnel engaged in purchasing and related functions occupy positions of public trust. Therefore, such personnel must conduct themselves with absolute loyalty to the government. Accordingly, they must not allow themselves to be placed in a position in which a conflict of interest may arise or in which they may be suspected. The acceptance of gratuities, favors, or any other action which would result in financial profit to the individual, or which would compromise strict impartiality must be strictly prohibited. Special benefits, such as furnishing information concerning proposed purchases, must not be given to particular suppliers unless such information is also made available to all com-

Procurement may be made by a command or office to meet the requirements of a particular item or service. It may be the various inventory management activities an activity may do the procurement within a geographical area or a part of a naval district. The procurement is made in accordance with the requirements.

Central Buying

Central buying may be done by commodity or by commodity. The procurement of a commodity is done primarily through the points (ICPs). Central buying is the Navy Purchasing activity which handles the various Navy regional centers and depots, etc. The complete list of commodities served by each may be found in chapter 1.

Purchasing centers are established for commodity, to the maximum extent possible, in accordance with the established policy of the Command for the administration of the field purchasing program. The program is designed to

Activities with Limited Purchasing Authority

Activities can be granted limited purchasing authority to make purchases on the open market. These purchases are over \$500, but they cannot be in excess of \$10,000. They are subject to additional monetary- or requirement-type limitations, as set forth in the individual letters of contracting authority. Purchasing authority is granted by NAVSUP (in writing) to these activities.

FIELD PURCHASING

Field purchasing is covered in detail in NAVSUP Pub 467. It should be studied thoroughly by the AK who is in a purchasing billet. All AKs, no matter what their billet assignment, should be familiar with field purchasing procedures. These procedures include preliminary purchasing procedures, specifications, small purchases, and special purchase procedures. These areas are discussed in the following paragraphs.

PRELIMINARY PURCHASING PROCEDURES

Each field purchasing activity must have

Imprest Fund Method

The imprest fund purchase method is a simple and economical method of effecting purchases for stock or for immediate issue which are not in excess of \$150 (\$300 under emergency conditions). It uses a cash fund from which payments are made at the time small purchases are made. The fund is reimbursed on a revolving basis by the disbursing officer. The imprest fund is similar to the petty cash funds used by private industry, and it is in the custody of a person known as the imprest fund cashier.

Field purchasing activities may make small purchases of supplies and services (other than personal services) in the open market by the use of imprest funds when all of the following conditions are met:

1. The transaction involves one delivery and one payment not in excess of \$150 provided that repetitive purchases of the same or similar supplies and services will not be made to fill requirements in excess of \$150. Under emergency conditions, field purchasing activities with purchasing authority in excess of \$150 may use the imprest funds for transactions not exceeding \$300. Emergency conditions include requirements with priority designators 1 through 8, or like situations (such as a requirement with a lower priority but requiring an immediate delivery).

2. The supplies or services are available for delivery within 30 days either from the local trade area or from outside the local trade area on a COD basis. Cash payments are to be made immediately upon delivery or performance thereof, whether at the vendor's place of business or at the destination. The following are representative transactions:

- a. COD charges of carriers for supplies ordered for payment from imprest funds, including carrier's transportation charges, if prepaid by the supplier and billed as a separate item on the invoice.

- b. Charges for local delivery and parcel post including COD postal charges for supplies ordered for payment from imprest funds when the supplier has been requested to arrange for delivery.

- c. Parking lot fees, including parking meter fees for government vehicles, when incurred in the course of effecting purchases with imprest funds or incident to other official business. Receipt for Cash—Subvoucher (Standard Form 1165) must substantiate payment chargeable to the budget financing the supply operations at the activity concerned.

- d. Bridge and toll fees when tickets or tokens are not provided in accordance with the NAVSUP Manual, Volume 2.

- e. Purchases under indefinite delivery type of contracts or federal supply schedule contracts.

- f. Payment of civilian volunteers for participation in approved medical research projects.

3. When the purchase does not require detailed specifications or technical inspections.

Imprest funds are NOT used for the following:

1. Payments of salaries and wages.
2. Payment of transportation charges on bills of common carriers; i.e., line-haul or intercity charges for transportation services paid direct to a common carrier as distinguished from transportation charges included as an integral part of the supplier's price.

3. Travel advances or any other advances except as authorized in NAVSUP 467.

4. Payment of travel claims.

5. Payment of public utility bills.

6. Cashing of checks or any other negotiable instruments.

7. Purchase of money orders.

8. Purchase from vendors or vendors' agents who are military personnel or civilian employees of the government.

9. Procurement of foreign items unless the applicable decisions of exception and documentation are made prior to procurement.

Most activities are authorized to establish imprest funds upon approval from the commanding officer. (NAVSUP Pub 467 should be checked if an activity not already having an imprest fund desires to establish one.) Only one imprest fund is authorized at each activity, except by special authority from NAVSUP.

The amount of the imprest fund must be kept the minimum consistent with the volume of purchases made from the imprest fund and the opportunity for prompt replenishment by the disbursing officer. The maximum amount of each imprest fund is one-third of the estimated monthly disbursements therefrom, or \$500, whichever is greater. This fund may not normally exceed \$1,000. When a fund of \$1,000 is insufficient, authority may be requested from the commanding naval regional procurement office or the NAVSUP to increase the fund to an amount to exceed \$5,000. Such requests must contain complete information to substantiate the increase, including present and contemplated volume of purchases and frequency of replenishment. The final copy of any authorization to increase the amount of the fund is retained by the imprest fund cashier. When an alternate cashier has been appointed and it becomes necessary to advance funds to the alternate, an amount not in excess of the original amount of the imprest fund advanced to the principal cashier may also be advanced to the alternate cashier.

A reimbursement voucher (Standard Form 1165) is prepared as often as needed. Reimbursement is never less than once a month if disbursements have been made. Instructions for filling out the form are contained in NAVSUP Form 1165.

The general management of the imprest fund purchase method is a responsibility of the purchasing or procurement organization. However, any officer, enlisted person, or civilian employee may be designated in writing as the imprest fund cashier or alternate cashier, except those who are assigned to the disbursing office or fiscal office. Both the imprest fund cashier and alternate cashier (if used) must be bonded in accordance with chapter 1, Volume 4, of the VCOMPT Manual.

Imprest funds must be kept entirely separate from any other funds and may not be deposited in any bank. The same security must be provided for other public monies. Funds and receipts for amounts paid out and not yet reimbursed are handled as cash. They are kept in secure storage accessible only to the person responsible for their custody.

A quarterly review is required by NAVSUP to determine if there is a continuing need for each

fund established and if the amount of the fund is in excess of actual needs. This review is made by the officer who approved the establishment of the fund or by his designated representative.

RECORDKEEPING.—Recordkeeping for imprest funds is kept as simple as possible consistent with the requirement that adequate control be maintained. Maintenance of an orderly and complete file of vendors' receipts for amounts paid out and not yet vouchered for reimbursement and copies of paid reimbursement vouchers ordinarily suffice for the records of the imprest fund cashier. Inspection reports are not required although they may be used when material is purchased for stock. Posting of imprest fund purchase obligations from the reimbursement voucher is authorized. Accounting for material purchased is in accordance with regular procedures except that documentation other than that covering purchase and payment to the dealer is avoided insofar as possible.

The imprest fund cashier is required to account for the established balance of the fund at any time, either by cash on hand, paid vendors' receipts, unpaid reimbursement vouchers, or interim receipts for cash. Unannounced inspections, including cash counts, must be made of each imprest fund at least quarterly by an individual designated by the commanding officer. The inspecting individual must be from the fiscal or comptroller office of the activity when such offices exist. However, the inspecting individual may not be the disbursing officer responsible for advancing the funds nor a subordinate of the imprest fund cashier.

Upon completion of each inspection and verification, a report of the result is submitted to the commanding officer. In the event that any shortage or other irregularity is disclosed, a copy of the report is furnished to the disbursing officer providing the imprest funds. Handling government funds is a serious responsibility, and the careless imprest fund cashier may face disciplinary action.

CASH ADVANCES.—When the imprest fund cashier furnishes another employee with cash for making payments for material to be picked up, the "Interim receipt for cash" portion of Standard Form 1165 or equivalent receipt form

is used. Under these circumstances the employee is required to sign the interim receipt stub at the time of advancement. When payment has been completed, the employee returns any unused cash to the imprest fund cashier with the required receipt except when prior approval of the purchase branch is required in accordance with NAVSUP 467. The imprest fund cashier then marks the interim receipt for cash "Void" and returns it to the employee.

Cash advanced is normally accounted for daily. However, under unusual circumstances when cash must be advanced to an employee to pay for purchases and this employee's duties require his/her being absent from the command for an extended period, cash may be advanced for a period not in excess of 7 calendar days. In all cases when material is paid for and picked up at the supplier's place of business by a Navy representative, the dealer's invoice, sales ticket, or other sales document is used as the imprest fund receipt document, and a signature in receipt of cash payment is accomplished thereon.

The requirement that the position of imprest fund cashier be covered under a position schedule bond does not extend to personnel to whom funds are advanced for making cash purchases.

Blanket Purchase Agreement (BPA) Method

The BPA method of small purchases provides a simplified procedure of establishing "charge accounts" with qualified sources of supply to cover anticipated small purchases of items in the same general category. Such an agreement eliminates the necessity of issuing individual purchase orders for small requirements. Purchases may be made by placing phone calls or by informal memoranda against the BPA.

Only major field purchasing activities and activities designated in NAVSUP Pub 467 are authorized to place BPAs. The use of this method is permitted only when there is a repetitive need for small quantities of similar supplies or services, and when its use is administratively more economical and efficient than any other small purchase method.

Agreements must be distributed equitably among qualified suppliers on the basis of comparative and established prices, offered discounts, and other factors. BPA agreements are prepared

and issued on the DD Form 1155. A continuation sheet, Standard Form 36, is prepared and issued with the DD Form 1155. Some of the terms and conditions typed on BPA documents are as follows:

1. Authorization and limitations.
2. A statement that the prices to the government will be as low as or lower than those charged the supplier's most favored customers.
3. A list of names of individuals authorized to place calls under the agreement, identified by organizational component and dollar limitations per call for each individual so designated. No individual may be authorized to place a single call in excess of \$10,000 except for subsistence as authorized in NAVSUP Publication 467.
4. A statement that all shipments must be accompanied with delivery tickets, prepared in triplicate, plus a listing of mandatory information required on the delivery tickets.
5. Delivery instructions.
6. Invoicing instructions.
7. Other required terms and conditions as described in NAVSUP Publication 467.

The PRINCIPAL ADVANTAGE of the BPA method is the "charge account" concept. Those personnel so designated on the DD Form 1155 can place telephone calls (within designated dollar limitations) to commercial suppliers without having to prepare separate purchase orders for each order. BPA procedures do not eliminate the requirement for solicitations from three qualified suppliers for purchases over \$1,000.

DELIVERY TICKETS must be prepared in triplicate by the vendor and must accompany all shipments. Upon delivery, the receiving activity will sign the three copies of the delivery ticket. One copy will be retained by the receipt control branch, and two copies will be returned to the vendor or his agent. The delivery ticket must contain the following information.

1. Name of supplier.
2. BPA number.
3. Date of call.
4. Call number.
5. Itemized list of suppliers or services furnished.
6. Quantity, unit price, and extension of each item, less discount.
7. The date of delivery or shipment.

INVOICING PROCEDURES require that the BPA is placed, it will provide for the submission of an invoice in quadruplicate at least daily or when the dollar value of calls placed is the aggregate dollar amount of the BPA. The contracting officer may choose one of the following invoice methods when placing the contract:

The SUMMARY INVOICE provides for voice supported by a receipted copy of each ticket. It will contain the following information:

- Individual delivery ticket numbers.
- Each call number placed under the BPA.
- The amounts and totals due the supplier.

The ITEMIZED INVOICE lists each item red. Each item delivery is also identified by applicable delivery ticket number and caller. This method does not require accompanying tickets.

The **INDIVIDUAL INVOICE** provides for voice to accompany each delivery.

the MINIMUM CONTROLS for the BPA and must provide that the person placing the does not perform the function of receipt, inspection, and acceptance of the material. It is probable that controls be established that exceed minimums and which will preclude the same from performing any two of the following functions:

Initiation of the requirement.

Placement of the call.

Receipt, inspection, or acceptance of the material.

FORMS

urchasing involves the use of many forms. In RTM, the forms most often used by the will be discussed in the following paragraphs.

DARD FORM (SF) 44

The Purchase Order-Invoice-Voucher (SF 44) (Figure 6-1) is used when procuring supplies.

[illegible]

211.356

Figure 6-1.—Standard Form 44—Purchase Order-Invoice-Voucher.

AVIATION STOREKEEPER 2

ORDERED BY <input type="checkbox"/> ORDER FOR SUPPLIES OR SERVICES		REQUEST FOR QUOTATIONS AND RETURN COPY TO: (SEE INSTRUCTIONS) (THIS IS NOT AN ORDER) (SEE INSTRUCTIONS)				PAGE 1 OF 2	
1. CONTRACT OR ORDER NO.		2. DATE OF ORDER		3. ORDER NUMBER-PROJECT NO.		4. ESTIMATED DELIVERY DATE (DD-MON-YY)	
5. QUANTITY		6. APPROVED BY (PRINT NAME)		7. ORDER FOR		8. DELIVERY TO:	
9. CONTRACT OR ORDER NO.		10. DATE OF ORDER		11. ORDER FOR		12. ORDER FOR	
13. ORDER FOR		14. ORDER FOR		15. ORDER FOR		16. ORDER FOR	
17. ORDER FOR		18. ORDER FOR		19. ORDER FOR		20. ORDER FOR	
21. ORDER FOR		22. ORDER FOR		23. ORDER FOR		24. ORDER FOR	
25. ORDER FOR		26. ORDER FOR		27. ORDER FOR		28. ORDER FOR	
29. ORDER FOR		30. ORDER FOR		31. ORDER FOR		32. ORDER FOR	
33. ORDER FOR		34. ORDER FOR		35. ORDER FOR		36. ORDER FOR	
37. ORDER FOR		38. ORDER FOR		39. ORDER FOR		40. ORDER FOR	
41. ORDER FOR		42. ORDER FOR		43. ORDER FOR		44. ORDER FOR	
45. ORDER FOR		46. ORDER FOR		47. ORDER FOR		48. ORDER FOR	
49. ORDER FOR		50. ORDER FOR		51. ORDER FOR		52. ORDER FOR	
53. ORDER FOR		54. ORDER FOR		55. ORDER FOR		56. ORDER FOR	
57. ORDER FOR		58. ORDER FOR		59. ORDER FOR		60. ORDER FOR	
61. ORDER FOR		62. ORDER FOR		63. ORDER FOR		64. ORDER FOR	
65. ORDER FOR		66. ORDER FOR		67. ORDER FOR		68. ORDER FOR	
69. ORDER FOR		70. ORDER FOR		71. ORDER FOR		72. ORDER FOR	
73. ORDER FOR		74. ORDER FOR		75. ORDER FOR		76. ORDER FOR	
77. ORDER FOR		78. ORDER FOR		79. ORDER FOR		80. ORDER FOR	
81. ORDER FOR		82. ORDER FOR		83. ORDER FOR		84. ORDER FOR	
85. ORDER FOR		86. ORDER FOR		87. ORDER FOR		88. ORDER FOR	
89. ORDER FOR		90. ORDER FOR		91. ORDER FOR		92. ORDER FOR	
93. ORDER FOR		94. ORDER FOR		95. ORDER FOR		96. ORDER FOR	
97. ORDER FOR		98. ORDER FOR		99. ORDER FOR		100. ORDER FOR	

Figure 6-2.—DD Form 1155.

ough the use of the purchase invoice method. SF 44 is used for over-the-counter purchases. It is a six-part form. Procedures for preparing SF 44 are listed in NAVSUP P-467, chapter 5. Since SF 44 does not contain any of the general clauses or provisions normally found on purchase orders, it may not be used in lieu of the Order for Supplies or Services/Request for Quotations (DD Form 1155). The proper uses for SF 44 are given below.

- When the use of a purchase order DD 1155 is not practicable.
- By pilots of aircraft on extended flights.

- To effect purchases by authorized individuals while they are away from the purchasing office.

- To effect purchases at isolated stations.

DD FORM 1155

Field purchasing activities prepare and issue purchase orders on the Order for Supplies or Service/Request for Quotations (DD Form 1155) (figure 6-2). When requesting quotations only, the DD Form 1155 will be filled out. The DD Form 1155r (figure 6-3) is the reverse side of the DD Form 1155. When using the DD Form 1155 for BPAs and additional pages are needed, the SF Form 36 (figure 6-4) will be used.

STANDARD FORM 36, JULY 1963 GENERAL SERVICE ADMINISTRATION GSA FPMR (41 CFR) 101-11.6		CONTINUATION SHEET		RFI NO. OF DOC. REV. CONT'D		PAGE	
NAME OF OFFICE OR CONTRACTING ABC Company		800001-76-CG27		2		2	
ITEM NO.	SUPPLY-SERVICE	QUANTITY	UNIT	UNIT PRICE	AMOUNT		
	<p><u>Pricing</u></p> <p>The prices to the Government for all purchases made under this agreement shall be as low as, or lower than, those charged the supplier's most favored customer, in addition to any discounts for prompt payment.</p> <p><u>Negotiation Authority</u></p> <p>The issuance of individual requests against this blanket purchase agreement will be made under the authority of 10 U.S.C. 2304(a)(3), 10 U.S.C. 2304(a)(6), or in the case of subsistence 10 U.S.C. 2304(a)(3), 10 U.S.C. 2304(a)(6), or 10 U.S.C. 2304(a)(9).</p> <p><u>Call Limitation</u></p> <p>No call placed under this agreement shall exceed \$5,000.</p> <p><u>Individuals Authorized to Place Calls and Dollar Limitations</u></p> <p>A list of individuals authorized to place calls under this agreement, identified by organization component, and the dollar limitation per call for each individual will be furnished separately to the supplier by the contracting officer.</p> <p><u>Delivery Tickets</u></p> <p>All shipments under this agreement shall be accompanied with delivery tickets or sales slips, in triplicate, which shall contain the following minimum information:</p> <ol style="list-style-type: none"> name of supplier; blanket purchase agreement number; date of call; call number; itemized list of supplies furnished; quantity, unit price, and extension of each item less applicable discounts (unit prices and extensions need not be shown when incompatible with the use of automated systems, provided that the invoice is itemized to show this information); and date of delivery or shipment. <p>Upon delivery, the receiving activity will retain one copy of the related delivery ticket and will sign the other two copies and return them to the supplier's designated agent. One of these copies may subsequently be required to support the invoice.</p> <p><u>Invoices</u></p> <p>A summary invoice, in quadruplicate, shall be submitted at least monthly for all deliveries made during a billing period, identifying the delivery tickets covered therein, stating their total dollar value, and supported by receipted copies of the delivery tickets. Invoices will be submitted on (insert date when vendor will submit monthly invoices).</p>						

Figure 6-4.—Standard Form 36.

CHAPTER 7

MATERIAL CONTROL

Material Control Centers (MCCs) are contact points within maintenance organizations where requirements for parts and materials are coordinated with the Supply Support Centers (SSCs). Organizational material control is discussed in detail in the Rate Training Manual (RTM), NAVEDTRA 10393, for AK3. This RTM will discuss the Aviation Intermediate Maintenance Department (AIMD) material control division.

FUNCTIONS AND RESPONSIBILITIES

The intermediate level AIMD material control work center performs basically the same functions as the organizational level material control. However, the AIMD is usually a larger organization and its functions are more complicated. In addition to the functions performed by a squadron material control (with the exception of flight operations fund OPTAR accounting), an AIMD material control is responsible for the following functions:

1. Verifying work stoppage requisitions.
2. Maintaining an aeronautical material screening unit.
3. Performing functions concerning the IMRL. The AIMD IMRL functions are much more complicated and require more work than similar functions at the organizational level.
4. Ensuring that all components turned in to supply are properly preserved and packaged.
5. In some cases, maintaining the OPTAR records and preparing corresponding reports for the aircraft fleet maintenance funds.

6. Arranging for the return of locally repaired RFI components and non-RFI components certified BCM by the AIMD to the component control section (CCS).

The AK at the organizational level of maintenance and the AK at the intermediate level of maintenance have functions which are slightly different. The organizational (O) level AK orders parts for aircraft, while the AK at the intermediate (I) level orders parts for test equipment and parts to repair components.

AERONAUTICAL MATERIAL SCREENING UNIT (AMSU)

All components received in the AIMD material control area are processed through AMSU. AMSU determines whether the item is within the capability of the AIMD to check, test, or repair. To do this, the AMSU performs the following functions:

1. AMSU receives check/test/repair components from the component control section (CCS) (repairables management section (RMS) for Marine Corps) representative. At this point, AMSU ensures that all the required documentation, such as logs, records, and VIDS/MAFs are affixed to the component.
2. Copy 2 of the VIDS/MAF is signed as an indication of receipt and given to the CCS representative.
3. AMSU positively identifies components and determines if they are within the check/test/repair capability of the AIMD through the use of the standard Individual Component Repair List (ICRL).

4. AMSU notifies production control of the receipt of components for scheduling into the appropriate work center.

5. AMSU receives notice from production control when components are to be scheduled for induction.

6. AMSU routes components to the appropriate work center.

NOTE: The AIMD MCC or the supply department AWP unit may be assigned primary AWP piece part requisitioning responsibility, at TYCOM discretion.

INDIVIDUAL COMPONENT REPAIR LIST (ICRL)

The ICRL is a maintenance management tool that provides the AIMD with the ability to relate maintenance capability to individual items. NAVSUP and NAVAIR issues the policies and procedures for the ICRL. ASO maintains the database and publishes the ICRL. Capability data in the master data bank at ASO is based solely upon Intermediate Maintenance Activity (IMA) input. The standard ICRL contains existing repair capability data on items processed by the IMA based on past experience. ASO uses the ICRL as one factor in the negotiation process for the determination of site operational support inventories (OSIs), fixed allowance (CFA) quantities, and allowance change request authorizations.

GENERAL USE OF THE ICRL

Supply Department Master Stock Item Records (MSIRs) reflect the local repair capability data. The supply department uses the local ICRL as a data source when recomputing repairable item allowances. It maintains progress records on attainment of local repair capability for designated intermediate-level maintenance fixed allowance items. The IMA publishes an internal instruction which amplifies ICRL maintenance and use. This is a combined AIMD and supply department effort. The AIMD and supply department each assigns an ICRL manager with responsibility for each ICRL distribution, update, training, audit, and coordination.

During the ICRL audit, items are selected from current production reports to verify that

ICRL transactions are being executed and recorded. Selected work requests are reviewed for ICRL program application documentation, and IMRL SE is spot-checked for inclusion on the ICRL. ICRL reports and files are validated for accuracy and completeness, and actions being taken to improve repair capability for items shown on the various ICRL management reports are checked.

AIMD ensures that each production division processing repairables not inducted through a central AMSU (such as engines, drop tanks, and SE) record repair data and originate ICRL input cards. Supply support centers (SSCs) process ICRL cards to ASO in a timely fashion.

To make a change to the ICRL, NAVSUP Form 1364 (Standard Individual Component Repair List Change Record) is used. NAVSUP Form 1364 is available as a standard Cog I form from the Commanding Officer, Naval Supply Center, Norfolk, VA or San Diego, CA. The unit of issue for this form is in boxes of 2,000. A detailed breakdown of ICRL codes, format, and their application can be found in NAVAIRINST 4790.14 (Series).

VISUAL INFORMATION DISPLAY SYSTEM (VIDS)

The VIDS is a management tool. It provides a visual display of the status of all the components within a production area and their repair status (IN WORK, AWM, AWP). The VIDS provides the maintenance officer and maintenance control officer or supervisor with the ability to review the overall situation and determine what resources are available so they can effectively and efficiently carry out their duties.

The VIDS display board (figure 7-1) consists of enlarged cardex-type pockets for the visual display of weapons system/component status. Each pocket is overlapped by the one above so that an approximately 3/8-inch strip is visible at the bottom of the pocket. Boards are currently available in 25-, 50-, and 100-pocket sizes. Outstanding material requisitions for NMCS,

CS, and AWP may be displayed on this board work center. The use of this board is optional.

NOTE: It is not mandatory to set up the VIDS cards in the exact format contained in this chapter; however, In Work, Awaiting Maintenance, and Awaiting Parts must be visually played by BUNO/side number.

The Material Requisition Register (OPNAV Form 4790/11) (figure 7-2) is used to transmit demands to the supporting supply activity when current facsimile transceiver equipment is not available. It is placed on the material control board to display AWP status. Data sequence and on the register is compatible with keypunch and MILSTRIP formats.

NOTE: There are several types of commercial equipment facsimile transceiver equipment being used in maintenance/supply activities. Formats for the commercial forms should be compatible with keypunch and MILSTRIP formats. With the exception of the Material Requisition Register, no specially designed material requisition forms are to be used without prior approval of the TYCOM.

Items used for the operation of the VIDS form such as signal tabs, file containers, replacement pockets for the boards, three-ring binders, etc., may be obtained through the Navy supply system or open purchase procurement.

The material control board should be set up in accordance with the format shown in figure 7-1. When notified by the work center that a part is required, the AK transmits the demand to the supporting supply activity using the priority and applicable project code assigned by production control. Also, the AK advises production control of the work center of the requisition number assigned. A copy of the facsimile transceiver form, register, or other form is placed on the VIDS board.

AIRCRAFT MAINTENANCE MATERIAL READINESS LIST (AMMRL) PROGRAM

Aircraft Maintenance Material Readiness List (AMMRL) is the title of the overall program. The

AMMRL program provides the data required for effective management of SE at all levels of aircraft maintenance. It involves over 17,000 end items of aircraft maintenance support equipment which are used throughout the Navy by aircraft maintenance activities. The AMMRL program also deals with the many ship- and base-loading combinations and various requirements for airframe configurations, powerplants, and avionics systems.

The objective of the AMMRL program is to document factual data and in-use asset information concerning SE. Such information may be used by management for the following purposes:

1. To determine and establish allowance requirements for SE at intermediate or organizational maintenance activities.
2. To redistribute in-use assets.
3. To provide a base for budgeting of SE requirements.
4. To measure material readiness.

DEFINITIONS

The following definitions apply to the AMMRL program.

1. **Accountable Item.** The term "accountable item" applies to all SE assigned report code R. The R code is assigned to all repairable Individual Material Readiness List SE in addition to all other SE costing \$200 or more.

A status change (gain, loss, survey) of a code R item requires a transaction report (figure 7-3) to that effect. Nonrepairable SE and/or items costing less than \$200 are assigned report code C (consumable) on IMRL. Report code C items do not require a transaction report.

2. **Aircraft Controlling Custodian (ACC).** These are commands that direct the movement

MATERIAL ACQUISITION REGISTER
 MMSTRIP (1) (REV. 3-75) N/A B107 J1.047-0005

A. DOC. IDENT		1. ACQ. TRANS		2. NO.		B. DISPOSITION	
3. FIC		4. ITEM		5. ADD		6. OFF	
C. QUANTITY		STATUS				7. PCN	
8. MFG CODE		9. PART NUMBER					
D. REFERENCE							
10. DOCUMENT NUMBER				11. JOB (CONTIN) NUMBER			
12. OR		13. SUPPL. ADDRESS		14. SIO		15. TYPE EQUIP	
16. BUREAU/UNIT NO.				17. WORK UNIT CODE		18. REQUESTED DTTIME	
19. FIC		20. FC		21. BIRTH		22. PROJ	
23. SIO		24. SIO		25. SIO		26. SIO	
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1. TRANSACTION REPORT - OFWAV 430064 (Rev. 1-80)											
1. UIC		2. LCN		3. SERIAL NO.		4. DATE		5. TIME		6. GAIN	
7. TRANS. NO.		8. TRANS. FOR NO.		9. REC. PROCEEDINGS TO		10. SECURITY		11. ISSUE		12. RETURN	
13. DATE DUE (R. STATUS)		14. QUANTITY		15. SUBJECT, GAG, WC		16. RECEIVED (DATE, TIME, BY)		17. RETURN		18. SUBJECT, GAG, WC	
19. PART/NO. NO. (22 DIGIT MAXIMUM)						20. MANUFACTURER'S CODE (5 DIGIT MAXIMUM)					
21. Nomenclature (22 DIGIT MAXIMUM)						22. RETURN					
23. PRIME A/N				24. IMRL IT				25. CORRECTION			
26. AUTHORITY (22 DIGIT MAXIMUM)				27. DATE DUE				28. DATE			
29. SERIAL NO.				30. SERIAL NO.				31. DATE DUE			
32. SERIAL NO.				33. DATE DUE				34. SUBJECT, GAG, WC			

Block 1 - UIC. Unit identification code for activity submitting the report. The IMRL account would be used for subactivities not having an UIC.

Block 2 - LCN. Local control number is an entry.

Block 3 - Serial No. Optional entry for the number of the GSE being reported.

Block 4 - Date. Mandatory entry for the transaction date (Example: 78001 - 1 January 1978).

Block 5 - Time. Optional entry for the item being reported.

Block 6 - IMRL Trans. Mandatory entry for items being forwarded to the appropriate NALC DET.

Block 7 - Trans. Ser. No. Mandatory entry for serial number of the transaction based on year listing sequentially from 001 through 999. Example: first report for 1976 - 80011.

Block 8 - REC From/TRANS To. Mandatory entry for the five-digit UIC of the activity that the item was received from or transferred to. On re-identification by transactions, the UIC in blocks 1 and 8 will be the same.

Block 9 - QUANTITY. Mandatory entry for number of items reported by the transaction.

Block 10 - NSN. Optional entry for local desired.

Block 11 - Part/Mod No. The part number stated on the GSE nameplate is entered without dashes, slashes, or spaces (except dashes are allowed in numbers only).

Block 12 - Nomenclature. Mandatory entry of the noun name assigned the item of GSE.

Block 13 - Manufacturer's Code. Mandatory entry of the five-digit manufacturer's code for the end item being reported.

Block 14 - Prime N/N. Optional entry which may be of local benefit if alternate items are being reported.

Block 15 - IMRL IT. Mandatory entry of the IMRL item number.

Block 16 - A/A. Mandatory entry for indicating the authorized allowance of items being reported in accordance with the activity's IMRL.

Block 17 - TOT O/H. Mandatory entry reflecting on-hand quantity remaining after action has been completed for which the report is submitted.

Blocks 18 through 21. Optional entries.

Block 22 - E/C. Mandatory or optional single position alpha or numeric code, depending on the type of transaction.

Blocks 23 through 33. Optional entries utilized locally for activities on Local Asset Management Subsystem (LAMS) reporting.

Block 34 - Authority. The noun name of the activity given in block 1 is entered. For surveys, also include survey document number.

Figure 7-3.—Support Equipment Transaction Report.

aircraft. The following commands are Cs.

- a. Naval Air Systems Command (NAVSAC).
- b. Commander, Naval Air Force Atlantic (COMNAVAIRLANT/COMNAVPAC).
- c. Chief of Naval Reserve (CNAVRES).
- d. Chief of Naval Air Training (CNATRA).

3. Alternate Items. An alternate item is an interchangeable or substitute for the desired item which is called a prime item).

4. Application Data for Material Readiness List (ADMRL). The ADMRL consists of data specifying the requirements for each item of SE as applied against the intermediate and/or organizational level of maintenance selected ranges of each type of aircraft engine and avionics system. This data is stored in computers and used to develop IMRLs.

5. Area Commands. Wings, Commander of Air (COMFAIRs), and Marine Aircraft Wings (MAWs) are area commands.

6. Excess "In-Use" Accountable SE. This includes any items of SE which meets any of the following criteria:

- a. An authorized IMRL item that is not considered to be needed in the authorized quantity.
- b. When possessed by an aircraft/maintenance activity, a quantity of SE that exceeds the authorized IMRL quantity or the quantity authorized by the ACC for retention as "in-excess-of-allowance."
- c. Any on-hand quantity of an item of SE which has been deleted from the activity's sent IMRL.

7. Support Equipment (SE). Support equipment is that equipment required on the ground to make a system, subsystem, or end item of equipment operational in its intended environment. SE includes all equipment required to accomplish the following actions: install, launch, arrest (except Navy shipboard and shorebased launching and arresting equipment), guide, control, direct, inspect, test (including automatic test equipment (ATE) hardware and software), adjust, calibrate, appraise, gauge, measure, assemble, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain, or operate the system, subsystem, end item, or component. SE applies to this type of equipment regardless of the method of development, funding, or procurement. SE does NOT include the following: machine tools, production or industrial equipment, or common and standard types of plant and facilities equipment (items procurable from standard commercial catalogs), office and collateral equipment, or standard automotive vehicles.

INDIVIDUAL MATERIAL READINESS LIST (IMRL)

The IMRL is a consolidated listing of the SE that is required by a particular activity to perform its assigned maintenance level function. The IMRL is maintained by the activity reporting all on-hand assets at the time they are received, inventoried, or transferred from the activity. It is extremely important that all of these transactions concerning IMRL items are reported at the time they occur. Knowledge of on-hand assets is necessary for ACCs and area commanders to ascertain an activity's overall readiness posture and ability to perform the assigned mission and tasks. The inventory quantities reported by the various activities are consolidated into area commander, type commander, and Navy-wide listings. These listings indicate the authorized allowance, on-hand assets, and total excesses and deficiencies. Procurement of SE is based on these consolidated Navy-wide listings. Therefore, accurate reports are required for intelligent procurement

It will ensure the maximum return is obtained from available funds.

IMRLs are presented in three major sections: body, the cross-reference indexes, and the range list.

IMRL Body Section

This section of the IMRL lists all items that are allowed for the applicable activity. Also, it shows the authorized allowance and quantity on hand for each item allowed. It may be divided into several subsections depending on the type of activity to which the IMRL applies. The division of subsections might be as follows: airframe SE, engine and propeller SE, avionics SE, general SE, armament handling equipment, facilities equipment (installed equipment in AIMDs or IMAs), and target/drone equipment. Each of these subsections may be further subdivided into two parts. If so, the first part of the subsection lists the SE which applies to only one particular type of aircraft, engine model, or avionics system. The second part of each subsection lists those items which are applicable to more than one type of aircraft, engine model, or avionics system.

The identification data heading in the body of the IMRL is made up of two columns—the IMRL Item NR column and the National Stock Number (NSN) column. The IMRL Line Item NR column contains sequential numbers. It begins with the number 1 and continues in sequence through the total number of items in the IMRL. The National Stock Number (NSN) column contains National Stock Numbers (NSNs), Federal Supply Code for Manufacturers (FSCMs), and part numbers of the prime and alternate items applicable to each IMRL line item. To find the prime item, look at the first line at the left margin. The applicable FSCMs and part numbers can be found directly below the NSN. Alternate NSNs can be found below the prime item information and are separated by two spaces. To find the applicable FSCMs and part numbers for each alternate NSN, look directly beneath their applicable NSN.

Under the descriptive data heading, data includes the nomenclature, special explanatory notes, weight, cube, SM&R code, and unit cost for prime items for each IMRL line item number. The maintenance level heading is subdivided into three columns—an I column, an O column,

and a T column. If an item is allowed at the AIMD/IMA level, an I appears in the I column. If the item is allowed at the organizational level, an O appears in the O column. If the item is allowed for transient maintenance, a T will appear in the T column.

The accountability data heading is divided into five columns.

1. **RPT CODE** column. The RPT CODE column contains a code which shows if an item is reportable. An R indicates an accountable item, while a C shows a consumable item.

2. **CAL CODE** column. If a C is found in the CAL CODE column, it means that the item is subject to periodic calibration requirements. If the column is blank, the item is not subject to calibration.

3. **P/P** column. The P/P column is either left blank or contains one of three codes. If Pre-positioning Code P is shown in this column, the item is available on a subcustody basis from the supporting AIMD/IMA. When a deployable unit will NOT be provided P-coded items from the supporting AIMD/IMA at the deployed site, the ACC takes the necessary action to provide P-coded items on subcustody for the period of deployment. If Pre-positioning Code E is found in this column, the item is available from the AIMD/IMA on an as-required basis. An L (which is a management code) in this column means that the item is a calibratable, organizational item. An L item is not otherwise pre-positioned. An L item is issued to squadrons on a subcustody basis, but the squadron may retain the item on hand when it deploys. If the column is left blank, the item is not subcustodied from the AIMD/IMA. The organizational activity must order its own item through the supply system.

4. **Blank** column. This column, immediately to the right of the P/P column, is not used.

5. **DATE/NR/SUPPORTED ACTIVITY** NR column. This column contains the activity UIC or type of squadron to which this particular IMRL applies.

The allowance and inventory data heading is divided into six columns. Four of the columns are discussed in the following paragraphs.

1. **COMPUTED ALLOW** column. The **COMPUTED ALLOW** column contains the quantity extracted from the ADMRL master file for each prime item. The letters **ZZZ** appear in this column if the item has been authorized as a **TYCOM** deviation. If the letters **UMN** appear, the item has been reported as being on hand, but is not part of the authorized allowance.

2. **TOTAL AUTH ALLOW** column. The **TOTAL AUTH ALLOW** column contains the quantity authorized by the **ACC**. This column shows the quantity of a particular item the activity allowed to have on hand. If identical items appear in more than one subsection of the **IMRL**, the allowance applies to all entries.

3. **RQRD ALLOW** column. The **RQRD ALLOW** column is usually blank. A **T** may appear in the column. The **T** means that the allowance has been "tailored." Tailoring is an adjustment of the authorized quantity in a specific activity's **IMRL**. The quantity may be higher or lower than the computed allowance quantity. Tailored quantities are reflected in all subsequent **IMRLs** for that specific activity until changed by **TYCOM/ACC**.

4. **TOTAL ON-HAND** column. The **TOTAL ON-HAND** column contains the quantity of the item that is on hand at the activity to which the **IMRL** applies. Each prime and alternate item has its own on-hand quantity listed on the same line as its **NSN**. The total on-hand quantity of the prime and alternate items for each **IMRL** line item number counts toward the total of the authorized allowance of the prime item. The total of these quantities cannot exceed the total authorized allowance. A continuous update must be made of on-hand quantities as transactions occur.

Cross-Reference Indexes

Cross-reference indexes are the key to the proper use of the **IMRL**. They provide a rapid

means of locating the position of an item in the body section. There are four different types of cross-reference indexes—part number, National Item Identification Number (**NIIN**), noun, and avionics. Each type of index is discussed in the following paragraphs.

The part number cross-reference index provides a listing of all prime and alternate items in the **IMRL**. The **IMRL** item number of the prime item is also listed for its alternate. All alternate items are indented and listed under the prime number **NSN** within the body section of the **IMRL**. The part number cross-reference is listed in numeric-alphabetic sequence.

The **NIIN** cross-reference index provides a listing of all prime and alternate items that are contained in the body of the **IMRL**. This index begins with part-numbered items followed by the stock-numbered items listed in **NIIN** sequence. When the **NSN** for an alternate item is shown in the identification data/**FSN** column, the prime **NSN** is shown in the descriptive data section. This shows the user that a prime item exists and the total authorized allowance is obtained from the prime item and not the alternate. All other column headings are the same as shown in the body of the **IMRL**.

The noun cross-reference index provides a listing of the prime items listed in the body of the **IMRL**. Each item is cross-referenced to an **IMRL** line item number. It is listed in alphabetic sequence by noun name.

The avionics cross-reference index gives a listing of applicable avionics systems. The complete avionics system is listed by system number even though partial support is authorized. The **IMRL** item number is shown below the system number, but it is indented to the right. If a particular item within the system is not authorized for a certain activity, the **IMRL** item number for that item is left blank. The restrictive codes **L** (land only), **V** (vessel only), or **C** (complete engine repair) are listed in the **LVC** column of this index. Absence of these codes means that the item is required on land and sea, and it is not peculiar to complete engine repair activities.

Change List

The Change List section of the **IMRL** contains all changes which have occurred since the last

printing of the IMRL. There are three types of changes that appear in this section.

1. Addition. This may be a new item, a new application, a change in maintenance level, or a conversion of a part number or NSN.
2. Deletion. This indicates the item is either no longer in the source data file, or it is not applicable to the aircraft supported. This also indicates it is no longer a prime item, or that a change in maintenance level has occurred.
3. Change. This is indicated when an item has a change in the RPT code, pre-position code, computed allowance quantity, or there is a NSN change.

Maintenance

The IMRL manager is responsible to the material control officer for the maintenance of the IMRL. Management of the IMRL involves the following functions:

1. Report all transactions such as the receipt of new items, transfer of items on hand, or changes in condition codes, authorized allowances, or on-hand quantities.
2. Conduct an annual physical inventory and submit the inventory report to the TYCOM/ACC.
3. Ensure that IMRL revisions are submitted for all types of changes such as additions and deletions.
4. Submit letters through the chain of command requesting disposition instructions for excess IMRL SE.
5. Survey applicable SE.
6. Maintain custody records for on-hand SE.

Transaction Reporting

1. Holders must report the following types of transactions:
 - a. Additions/Increases. This includes all changes in on-hand quantities because of the

receipt of new or additional items and to gains by physical inventory.

2. Deletions. This includes decreases in on-hand quantities because of transfer or loss.
3. Changes in condition. Reportable SE determined to be beyond economical repair will be surveyed and reported accordingly.

There is one transaction report card used within the Navy—the Ground Support Equipment Transaction Report (OPNAV Form 4790/64). It is used by IMRL activities for SE transaction reporting. Figure 7-3 shows this report with an explanation of the entries needed when an activity submits a report. The IMRL account number is used for a subactivity which does not have a UIC. Requirements for transaction reporting of SE are similar for all ACCs. However, the local ACC references should be consulted for details.

Annual Inventory

Continuous management control of SE is maintained by the timely submission of transaction reports. However, an annual inventory of SE must be conducted, records corrected, and a report submitted.

The annual physical inventory may be conducted at any time during the calendar year at the discretion of the area commander. However, the completion date is not later than 31 December each year. The inventory must be a wall-to-wall inventory, and it must be conducted by an inventory team composed of personnel who are knowledgeable in the identification of all types of SE.

The results of the physical inventory are matched against the activity's custody records. All discrepancies are investigated. Unresolved differences are reported by means of transaction reports. Written reports are submitted to the applicable NAVAFLCEN with copies to the ACC and area commander.

Revision

Allowances of SE are normally the same for two activities that support the same number and the same type of aircraft under similar conditions.

however, the AMMRL program does provide procedures for tailoring these allowances when conditions change. This tailoring action is initiated by the activity that holds the IMRL for which a change is desired. They initiate this action by the submission of an IMRL/ADMRL change request. The IMRL change request, NAVAIR Form 50/1, is available in the Navy supply system.

Reporting Excess

Reporting excess SE is an important element in the maintenance of an IMRL. Through these reports, ACCs are able to redistribute items of material to the activities that need them. Excess SE is that equipment which meets any of the following criteria:

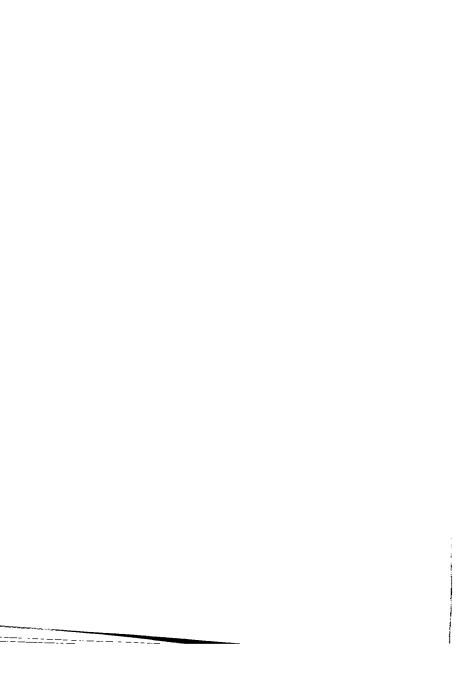
1. Authorized IMRL items not required for the performance of mission responsibilities.

2. SE found as a result of physical inventory for which no allowance exists.
3. SE which exceeds the authorized IMRL allowance quantity.

NOTE: All such material reported should be in a Ready For Use (RFU) condition if its repair is within the activity's maintenance capability or within the capability of the supporting AIMD/IMA.

Surveys

Items that are lost or beyond economical repair should be surveyed. Surveys for most IMRL items must be approved by the ACC. The IMRL manager should consult applicable ACC instructions for guidance in each case. After approval is obtained, the surveyed items are transaction reported and disposed of as directed.



CHAPTER 8

SUPPLY SUPPORT

Navy stock is generally replenished on a continuous basis. Replenishment depends upon the nature of activity and/or activities which are supported. All supply departments, regardless of size and location, have an assigned activity to which they submit requests for material. In the case of maintenance activities, this request is submitted at the organizational/intermediate/depot level and flows to a designated point in the supply system.

NAVAL SUPPLY SYSTEM

The major responsibility of the Navy supply system is to provide material in support of the operation and maintenance of the Navy. To fulfill this responsibility, every effort is made to have material located when and where it is needed. The intent of the Navy supply system is to make the relationships between the supplier and the user as simple as possible. The relationship between the user is governed by logistic directives issued by higher authority.

POLICIES AND CONCEPTS

In order to achieve a successful maintenance and material management program, the relationship between various parts of the Navy supply system must be maintained. The procedures which establish the relationship are as follows:

1. A close liaison must be established and maintained between supply and maintenance. This liaison will achieve the common goal of maximum weapon system operational readiness.

2. Material management involves a direct relationship between two complex operations—maintenance and supply. Therefore, it is important that these two operations have a single point of contact for coordinating functions that are common to both operations. The success of material management at any activity will largely depend upon the success of this coordinated effort. In order for the coordinated effort to be successful, supply and maintenance personnel need to be familiar with each others responsibilities. Material control branches are contact points for maintenance operations and supply support centers (SSCs) are contact points for supply operations.

3. Meetings will be held at least once a month between supply, organizational, and intermediate maintenance representatives. These meetings are held so that problem areas can be resolved, local procedures can be established (that do not conflict with OPNAV Instruction 4790.2 (Series)), and material support effectiveness is promoted.

SUPPLY AND MAINTENANCE RESPONSIBILITIES

Readiness is achieved by following sound management practices in maintenance and supply. In an intermediate maintenance activity (IMA), material management and supply support are key areas for determining readiness. Some of the responsibilities of the IMA which affect readiness are listed below.

1. Proper management of repairable asset inventories.
2. Accurate determination of allowances.

3. Timely retrograde of non-RFI depot-level repairable material.
4. Full use of available resources to repair aeronautical material.
5. Application of procedures, policies, and regulations established for support of the operating forces.

Within the IMA, the supply department and the maintenance department have distinct and separate functional responsibilities. These responsibilities are discussed in the following paragraphs.

Supply Department

The supply department maintains an Operational Support Inventory (OSI) for support of assigned operating forces. Supply personnel maintaining the OSI issue, receive, store, and control items carried in local stock. Supply department personnel record customer demand, order as needed, and they adjust allowances in response to demand patterns. Supply provides on-station pickup and delivery service for all material. Supply department personnel provide daily organized listings with complete supply status for all Non-Mission Capable/Supply (NMCS), Partial Mission Capable/Supply (PMCS), and repaired NMCS to both organizational and intermediate maintenance levels. They make sure quantities are sufficient for adequate distribution. These listings are used for daily validation. Complete listing is sent to AIMD on a weekly basis. This listing contains the status of all AWP items. The AWP validation will be done weekly. Supply personnel maintain a technical library for supply purposes. The library contains appropriate supply and maintenance publications and direct-preexpended bins (PEBs) are maintained replenished by supply personnel.

Maintenance Department

The maintenance department initiates requests for material. Maintenance personnel provide a part number, manufacturers' code, and any additional information needed to assist supply in locating the correct part requested. They attend maintenance/material meetings between maintenance, and supported squadrons and are represented by the AIMD maintenance department

officer. These meetings are held to solve supply/maintenance related problems.

SUPPLY DEPARTMENT ORGANIZATION

Material management and supply support involves a direct relationship between two complex operations—maintenance and supply. Therefore, it is important that these two departments have a single point of contact for coordinating functions that are common to both operations. Material control centers (MCCs) are the contact point for maintenance activities while the supply support centers (SSCs) are the contact points for supply departments.

COMMUNICATIONS

Rapid communication between the MCC and the SSC is effected through the use of data transmission equipment. In addition, direct lines of communication are maintained between the various SSC functions when these functions are geographically separated. The effective use of communication devices permits maximum coordination between supply and maintenance functions; thereby improving the overall material management program. Communication equipment may include telephones, radios, teletypewriters, and computers.

SUPPLY SUPPORT CENTER

The SSC officer is responsible to the supply officer for the effective performance of the division (or branch, as applicable). The SSC division is responsible for effective supply support of assigned organizational maintenance activities (OMAs) and the aircraft intermediate maintenance department (AIMD). The SSC officer acts as a direct link between the AIMD officer and the supply officer and attends the monthly maintenance/supply meetings. The SSC serves as a single point of contact for local maintenance and supply activities, and it functions primarily to satisfy the material requirements of aviation maintenance activities.

FUNCTIONS

The functions of the supply support center are as follows:

1. The SSC is a central point of contact within the supply department for maintenance activities requiring direct supply support. This is its primary function.
2. Supervise the operation of the supply response and component control section.
3. Provide the supply officer with status on the quality of supply support rendered.
4. Ensure continuity of material reporting as required by applicable local reports.
5. Maintain, through liaison with the OMAs, an adequate authorized level of TAD personnel.
6. Ensure adequate daily manning levels to support the local maintenance effort. The SSC is

open for business consistent with the operating hours of the maintenance organizations supported. If maintenance is being performed 24 hours a day, supply support will be available 24 hours a day.

ORGANIZATION

The SSC is divided into two major sections—the Supply Response Section (SRS) and the Component Control Section (CCS) (figure 8-1). These two sections along with their units will be discussed later in the chapter.

If at all possible, the SSC will be located next to the maintenance area to foster maintenance/material support coordination. Locations from station to station may vary because of local geographic layout.

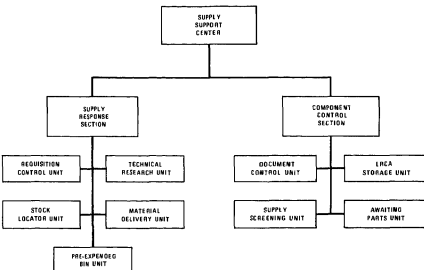


Figure 8-1.—Typical supply support center organization.

As mentioned previously, business hours for the SSC and all of its functional elements are consistent with the operating hours of supported maintenance organizations. Manning levels during non-normal working hours are consistent with the support required and the requisition processing standards established. The supply officer is provided with additional AK personnel through TAD assignments from squadrons to compensate for the added workload. Detailed directives for TAD of AK personnel are issued by the type commanders.

SUPPLY DOCUMENTS

Various supply documents are available for processing requirements in the SSC. The supply department determines the particular forms to be used by an activity, depending upon such factors as available resources. Examples of these documents are listed below:

1. The Navy Maintenance and Material Management System Form (NMMMS) is used in conjunction with telewriter equipment such as the autewriter and electrowriter. The number of copies for each transaction varies with the type of equipment used, usually a maximum of four copies.

2. The DD Form 1348 (single line item requisition document), 6-part manual form is prepared with a typewriter or ballpoint pen and consists of a green, pink, yellow, white, and two hard copies.

3. The DD Form 1348m (mechanized) is prepared with card punch machines. The number and color-coding of cards for each transaction vary with local requirements. Usually, four cards are used for consumable issues and six cards for repairable issues.

4. The DD Form 1348-1 is a 7-part form. It is prepared with a typewriter, ballpoint pen, or mechanized printing machine. It is normally used to process turn-in material, off-station receipt, off-station shipments, and in some cases, on-station issues.

5. The OPNAV Form 4790/11 (Material Requisition Register) was originally designed as a log for the organizational and intermediate material control division. It is also used by the SSC for logging all 3-M demands received to facilitate

control and follow-up, and to expedite actions. When facsimile transceiver equipment is used, the transceiver form may be used in lieu of the material requisition register.

RESPONSE STANDARDS

Refer to table 8-1 while reading this section. The maximum elapsed times are established for issuing items available in local supply stocks or furnishing requisition status on an automatic basis for Not Carried (NC) and Not In Stock (NIS) items. Elapsed time starts when material control places a requirement on the SSC and stops when the requested material or status (if NIS/NC) is received at the specified delivery point.

The SSC issues material or provides status (if NIS/NC) within the standards listed in table 8-1. Response time is individually measured and recorded so the supply officer can review it on a monthly basis.

MANAGEMENT OF REPAIRABLES

The SSC has the principle responsibility for operating site (IMA) repairables management. The CCS executes repairables management policies and procedures for all uninstalled or in work Depot Level Repairable (DLR), Field Level Repairable (FLR), and IMA supply assets.

When managing Local Repair Cycle Assets (LRCAs), maximum attention will be given to optimum stock level maintenance. When the OSI stock level on an item becomes critically low, AIMD will be requested to apply priority effort to repair like items in the AIMD repair cycle. A typical stock record used for LRCA management is shown in figure 8-2.

Table 8-1.—Response time

Priority Group	Priority	Processing Time
I	1-3	1 Hour
II	4-8	2 Hours
III	9-15	24 Hours

If the requested item does NOT appear, TRU stamps the requisition "Mandatory Turn-in Required" (MTIR). When the SLU has a NC/NIS on repairable items, the requisition is returned to TRU where it is checked for interchangeability or substitute stock numbers and returned to SLU for availability.

STOCK LOCATOR UNIT (SLU)

The SLU determines the availability and location of material and forwards the issue document to the MDU for delivery to the requesting organization. When the item is NIS and the requisition is for a Non-Mission Capable Supply/Partial Mission Capable Supply (NMCS/PMCS), SLU personnel perform a physical warehouse/storeroom check to verify the NIS.

MATERIAL DELIVERY UNIT (MDU)

The MDU is responsible for the delivery of all material to supported activities. When material is delivered, MDU personnel will have the customer annotate the time/date/signature on the pink and hard copy of the DD 1348 as receipt for material. The customer retains the pink copy for record purposes, and the hard copy is delivered to the RCU for processing. When delivering repairable items and the DD 1348 is stamped MTIR, an immediate exchange or proof of prior turn-in is obtained from the recipient. When the exchange or proof of prior turn-in is not available for repairable components, the customer also signs the yellow copy for the DCU.

Deliveries should be planned, scheduled, and executed to the maximum extent depending upon the number of drivers/vehicles available and the volume of material to be delivered. Deliveries should be consistent with the time limits listed in table 8-1.

PREEXPENDED BIN (PEB) UNIT

The PEB contains high usage, maintenance-related materials that have been expended from the supply department's stock records and financial account. The purpose of the PEB is to shorten the issue and accounting procedures for recurring issues of maintenance-related materials.

PEBs must be located where they are readily accessible to maintenance personnel. When possible, they are located where they can be observed by an AK to aid in recognizing abuse to the pre-expended system. Items subject to pilferage are retained within an enclosure with access limited to authorized personnel designated in writing by the maintenance officers of the activities being supported. The SRS is responsible for management and maintenance of PEBs by replenishing or turn-in action, when required.

PEB stock is limited to maintenance-related materials having a minimum demand frequency of three per month. PEB stock will not exceed a thirty-day supply. Items with a unit cost of \$50 or less may be routinely established in pre-expended stock. Items costing over \$50 may be stocked with the approval of the commanding officer.

COMPONENT CONTROL SECTION (CCS)

The component control section (CCS) is the section of the supply support center that is responsible for accounting and managing all repairable material stored in local repair cycle asset (LRCA) storage areas, all repairables undergoing repair in the AIMD, and all repairables being processed for shipment to designated overhaul points (DOPs).

ORGANIZATION

The CCS is divided into four units—Document Control Unit (DCU), LRCA Storage Unit, Supply Screening Unit (SSU), and Awaiting Parts (AWP) unit. Refer to the supply support center organization shown in figure 8-1.

FUNCTIONS

The functions of the individual units within the component control section are discussed in the following paragraphs.

Document Control Unit (DCU)

The DCU is responsible for maintaining control of components and their associated

nts. The following files are maintained by U.

Document Suspense File. This file contains the copy of the DD Form 1348 received from the TRU/RCU. This file indicates that a defective component has been placed for a repairable component in an EXREP. This file is maintained in Job Number (JCN) sequence. The white copy is retained in the file until copy 2 of the MAF is received from AIMD. The white copy is then forwarded to the data services facility.

Exchange-Due File. This file contains the copy of the DD 1348 received from the TRU/RCU. It indicates that a defective component is

awaiting return. The Exchange-Due File is maintained in JCN sequence. It is checked against the CRIPL for defective components which do not require a "remain-in-place" items. The DCU is updated on a daily basis to ensure the timely receipt of defective components which do not require a "remain-in-place" items. Turn-in of defective components is required within 24 hours after receipt of a new component that is listed in the CRIPL.

Production-Return-Due File. This file contains copy 2 of the VIDS/MAF received from the TRU/RCU indicating the component has been received for repair. The file is maintained in NIIN sequence awaiting return of the white copy of DD Form 1348 from the SSU. The return of the white copy of DD 1348 signifies receipt of the component from AIMD. After receipt of the white copy of DD 1348 from SSU, copy 2 of the VIDS/MAF is forwarded to data processing for material processing.

Repair Cycle Asset (RCA) Storage Unit

The LRCA storage unit is responsible for the receipt, storage, issue, and accountability of repairable assets located in any storage location designated for LRCA, including the rotatable pool of LRCA, including the rotatable pool of LRCA. They are usually stored in a location that hastens timely IMA repair and return to service in RFI condition. The rotatable pool of LRCA will be located in an area that

promotes efficient supply support of aircraft maintenance; i.e., rapid issue to OMA/IMA.

The supply department will prepare a "shopping list" of repairable items carried in the LRCA storage locations, with specific identification of rotatable pool items. The lists are distributed to all aircraft maintenance activities requiring supply support. The format of the "shopping list" is in various sequences adapted to maintenance activity needs.

Awaiting Parts (AWP) Unit

While a component is undergoing repair in the AIMD, there are numerous times when parts are ordered which are not available locally. When this situation occurs, the component is considered to be in an AWP status. The AWP unit is responsible for receiving, storing, and controlling all AWP components returned from the AIMD. This unit should be located adjacent to the AIMD production control. Material that is awaiting parts is located in the AWP storage area. Aircraft engines and components of similar nature which are AWP may be retained in the appropriate work center when movement to an AWP holding area is considered impractical.

The following functions are assigned to the AWP unit.

1. Establish holding and staging areas for AWP components.
2. Requisition parts for component repair. Maintain requisition files, registers, and records necessary to monitor, follow-up, expedite, reconcile, and report material demands for component repair.
3. Maintain liaison with SRS on maintenance material matters to ensure delivery of material required for component repair.
4. Receive incoming material; identify it to the failed component; and when all required material is received, reinduct component.
5. Continually review and follow-up on off-station requisitions to fill AWP requirements.
6. Establish procedures to ensure that unsatisfactory LRCA AWP situations are made known to higher authority for assistance.
7. Make recommendations for controlled cannibalization of AWP components upon joint review and determination between the AWP unit supervisor and the IMA production control.

Cannibalization is a term used to describe the removal of a serviceable part from one component for installation in another making it ready for issue. Cannibalization occurs when there is more than one component of the same type in AWP and a different part is needed for each component. All records must be changed to reflect the cannibalization actions.

When AIMD is unable to repair an item to RFI condition, the complete component is forwarded to the supply screening unit for processing to the DOP. When such action has been taken, AWP sends cancellations on all of the outstanding requisitions for the BCM'd component.

A weekly listing of all outstanding requisitions is furnished to the CCS/AWP by the supporting DSF. The listing is in a sequence that best aids the reconciliation and, if required, is furnished in more than one sequence; i.e., NIIN, document number, or work center. The listing contains a minimum of the following data:

1. Requisition number
2. National stock number

3. Unit of issue and quantity
4. Originator code of requisition
5. Project and priority
6. Nomenclature
7. Work unit code
8. Work center
9. Latest status and routing identifier code of the activity furnishing status.

Supply Screening Unit (SSU)

The Supply Screening Unit (SSU) is responsible for processing all items received from AIMD. If possible, the SSU is located next to the AIMD material control. At time of receipt of a repairable component from AIMD with applicable paperwork, the SSU determines the condition (RFI, non-RFI condition) of the component as indicated on copy 4 of the VIDS/MAF. The white copy of the DD 1348 is pulled from the AIMD due file. If the component is RFI, it is returned to storage for stock. If the item is non-RFI, it is processed for shipment to the DOP as indicated in the Master Repair Items Listing (MRIL).

CHAPTER 9

SPECIAL PROGRAMS

The special programs chapter has been added to provide the AK with the information necessary for managing special programs. Special programs discussed here are not found in other sections of this rate training manual (RTM).

PROGRAM MANAGEMENT BRANCH

The program management branch (PMB) is a formal branch within the organizational structure of a supply department. However, supply support centers (SSCs) have a PMB which manages and expedites NMCS/ materials and equipments for organizational activities and work stoppage. It also has requisitions for the AIMD that are NIS local supply department.

STAFFING

The PMB should be adequately staffed, even at the expense of other supply functions. To meet the CNO aircraft readiness goals, it is essential that high priority requisition expediting be accomplished on a timely basis. This requires that materials and equipments must be available when needed. AK2s and above will normally be assigned to the PMB at some point in their Navy career. These assignments are accomplished by AKs from the supported squadron being sent TAD to the supporting supply department for material support. These actions are accomplished in accordance with TYCOM instructions.

FUNCTIONS

The functions of PMBs may vary from ship to ship or from station to station, depending

upon the mission of the activities supported. Some of the functions of a PMB are listed below.

1. Ensure all local sources are exhausted before passing requisitions off-ship/off-station.
2. Ensure proper issue priority designator (IPD) and project codes are assigned.
3. Include all MILSTRIP and technical data in the requisition.
4. Pass requisitions to the proper external source.
5. Make proper reports to the external activities.
6. Maintain local records and prepare local reports.
7. Perform scheduled material obligation validations (MOVs) and reconciliations between maintenance and supply records.
8. Ensure incoming receipts are promptly screened and delivery of material is expedited to maintenance activities.
9. Maintain close liaison with maintenance activities and provide such information as the latest status or expected delivery dates.

MANAGEMENT TECHNIQUES

Within the PMB, a highly motivated supply technician might be assigned the duties of an expeditor. The expeditor must be an aggressive person with knowledge of the supply system in order to meet the operational aircraft readiness goals of the CNO.

Even though the requisition has gone through the technical research unit (TRU), the expeditor checks alternate sources of supply. The alternate sources of supply that might provide the needed

material, parts, or equipment consist of any one or all of the following:

1. Substitute/interchangeable. The expeditor screens for local or system availability for a possible substitute or interchangeable item.

2. Next higher assembly. The expeditor should review technical publications to find out if there are next higher/lower assemblies. The expeditor verifies with the maintenance activity that such assemblies satisfy the requirement for a particular item. If usable, the expeditor screens for local or system availability.

3. PEB stocks. Screening of PEB stock will often locate the required material. The expeditor should place particular emphasis on screening PEBs located in work centers other than those of the requesting work center.

4. Inter-AIMD repair. When RFI assets are not available in the system and the item was BCM'd for lack of skills, publications, or test equipment, repair of the failed component by another AIMD should be considered.

5. Depot customer service. The expeditor should consider using customer service if it has been determined that a required component is not available in the system or a like component is not in the process of being returned to the supply system from depot-level repair.

6. Local procurement. Expeditors at shore sites can frequently locate consumables when the system is NIS and long estimated delivery dates (EDDs) are provided.

MATERIAL OBLIGATION VALIDATION (MOV)

Daily listing for NMCS/PMCS requisitions are furnished to each squadron/OMA for reconciliation/validation. The squadron/OMA uses the listing to annotate any changes, additions, cancellations, completions, or downgrades. The daily listings are returned to the PMB on the same day. Normally, validations are conducted monthly. However, the PMB section may require validations to be conducted at any time to ensure that a 98 percent accuracy rate is maintained. The daily listing used by the PMB is also used by the AWP for the same purpose with the exception that it is a weekly listing.

EXPEDITING

The expeditor uses all of the available resources to find and procure needed items or equipment. Some of the resources which are available for expeditor use are listed below.

1. ASO remote terminals (CONUS shore sites) can be used to locate required material and to obtain status of requisitions.

2. By telephoning the inventory control point item manager or customer assistance section, the PMB can establish expedited delivery.

3. The expeditor can use the NAV-AIREWORKFAC fleet-ready action groups (FRAGs) for depot-level assistance.

4. If all of the avenues listed above have been explored and the results are negative, a supply assist message should be sent to the type commander. Information should be sent to the last known holding activity.

TOOL CONTROL PROGRAM (TCP)

The Chief of Naval Material, through NAVMAT Instruction 10290.2 (Series), establishes the TCP. The primary purpose of the TCP is to reduce the potential for tool-related mishaps (better known as foreign object damage or FOD). Another purpose of the TCP is to reduce the cost of tool replacement. Through the use of this program, the technician is provided a means of rapidly accounting for all tools before and after completing a maintenance task on an aircraft or its related equipment.

The TCP is based upon the instant-inventory concept. This concept is executed by providing internally configured, silhouetted tool containers. All tools have individual locations to highlight a missing tool. An inventory listing is included within each container.

RESPONSIBILITY

A program coordinator is assigned by NAVAIRSYSCOM. The coordinator maintains a standard tool control plan (TCPL) for each type of aircraft and engine. The TCPL is used to assist aviation maintenance activities in the

Implementation of a TCP. The following information can be found in each TCPL:

- 1. An allowance list for tool containers.
- 2. A standard tool list and layout diagram for each container.
- 3. The procurement information necessary to procure tool containers and other associated ware.

The aircraft controlling custodians (ACCs) are required to implement each TCPL after it has been formulated and released by NAVAIR-COM. Then, each ACC issues its own policy in accordance with the CNAINST 4790.16 (Series) and PINST 4790.18 (Series), as required by AIRINST 102902 (Series). Each local command, ship, and squadron will reference the COM instruction when preparing a maintenance instruction which governs all of the responsibilities under that particular command. Once the TCPL has been implemented in a command, the material control officer is responsible for ensuring that tools are procured and issued on a controlled basis. Most commands incorporate a tool control center under the control of the material control officer. When a tool control center is not practical for activities taking aboard ships, the commanding officer delegates in writing a tool control coordinator. Some of the responsibilities of the tool control coordinator are as follows:

- 1. Conduct tool inventories at intervals established by the functional wing commander.
- 2. Use the TCPL for the specific aircraft when requesting tools.
- 3. Monitor and approve all requisitions for tool issue and replacement tools.
- 4. Ensure that all tool requests and requisitions are itemized. The issuing of blank-check (SERVMART) DD Form 1348 requisitions without material control is not authorized.
- 5. Ensure that all tool expenditures are accounted.
- 6. Maintain custody of all tool containers not turned out on subcustody.
- 7. Issue tool containers on a signature basis.
- 8. Issue special tools on a signature basis.
- 9. Procure and issue replacement tools for returned tools.

TOOL CONTROL CONTAINERS

The TCPL contains a list of each container and acts as an inventory aid for each type, model, series aircraft, and/or equipment worked on. The exterior of the container will clearly identify the work center, tool container number, and organization to which it is assigned. Tools in the container have the work center code, organization code, and container number etched on them. Special accountability procedures are established locally for the tools not suitable for etching; for example, drill bits (too hard) or jewelers screwdrivers (too small). Tool pouches are to be considered as tool containers and are manufactured locally.

EMPTY REUSABLE CONTAINERS

Reusable engine, target, and component containers are high-cost items procured by NAVAIR or ASO in limited quantities with the intention that they be available for reuse. A container loses its NSN identity when it contains an item of supply. Both the container and the item of supply are identified by the NSN of the contained item. However, once the container is empty, it takes on its own identity. It is this empty container (with its own identity) to which this section is directed. ASO Instruction 4000.9 (Series) lists the reusable containers that are used in the aviation supply system. The following paragraphs discuss the types of containers; requisitioning, repair, and shipment of containers; and reporting procedures for empty reusable containers.

TYPES OF CONTAINERS

Various types and sizes of reusable containers are used for preservation and packaging. The containers may be a combination of shipping and/or storage containers for selected aeronautical repairable assemblies. The three types of containers are defined below.

- I. The first type of container is a cylindrical drum container of a lidbolt-ring design for general application. These containers, when used with various cushioning materials, are

suitable for packaging repairable items within their size capabilities.

2. The second type of container is a cylindrical drum container that has specialized molded cushioning for a specific single application, such as fuel controls or carburetors. These special molded containers were developed for a few expensive items to assist the field activities.

3. The third type of container is a specially designed container for various high cost components such as helicopter transmissions, rotors, in-flight refueling stores, auxiliary powerplants, and armament assemblies. Normally, these containers are procured on a program basis and in limited quantities.

REQUISITIONING, REPAIRING, AND SHIPPING CONTAINERS

Empty containers should not be requisitioned for stock. Containers should be requisitioned through normal requisitioning channels when they are required for use in shipping engines or components.

Containers that require minor rust removal or replacement of stock parts should be repaired and/or repainted prior to use by local facilities. Those containers that must be modified in compliance with the latest NAVAIR instructions should be so modified and marked at the time of reconditioning. (Reconditioning is normally accomplished with the rework of the engine or component by the applicable NARF.)

Activities shipping empty containers must ensure they are complete with engine attaching parts and are shipped with all flange bolts in place. Reusable, small empty containers should be palletized due to safety hazards encountered in mechanical handling and unloading and to reduce the amount of container damage during shipment.

REPORTING CONTAINERS

ASO Instruction 4000.9 (Series) provides the detailed requirements for reporting empty reusable containers. Briefly, these requirements are as follows:

1. Transaction item reporting (TIR) activities must report all transactions involving empty

reusable engine and specialized containers to ASO, as they occur.

2. Non-TIR activities report the on-hand quantities of empty reusable ENGINE containers (except J33, J34, J48, J57, J60, J65, and T50 engine containers) on a monthly basis. Specialized empty containers and those engine containers mentioned within parentheses of this paragraph are reported to ASO on a quarterly basis.

PROCUREMENT AND CONTROL OF AIRCRAFT ENGINES

Aircraft engines are the most expensive single item of support in the naval aviation supply system, both in terms of unit cost and total dollar expenditure. Because of this large investment, close management control procedures that shorten out-of-service time and reduce quantities of spare engines being procured have been implemented. Close control procedures involve the designation of controlling custodians and the implementation of engine transaction reporting (ETR). This section is a discussion of engines with regard to fleet support custodians, controlling custodians, requisitioning procedures, and engine transaction reporting. Through this discussion, the AK will be introduced to the procedures involved for determining and maintaining stock levels for aircraft engines.

NAVAIRSYSCOM FLEET SUPPORT CUSTODIANS

NAVAIR has designated certain activities which have custody of the aircraft engines that are directly controlled by NAVAIR as NAVAIR-SYSCOM fleet support custodians. They include the following:

1. Designated overhaul points (DOPs).
2. Naval plant representatives.
3. Navy and Air Force inspectors.
4. Reserve aircraft storage points.
5. NAVAIRSYSCOM headquarters.
6. Some special NAVAIR activities (contained in NAVAIR Instruction 13700.1 (Series)).

se commands report all transactions involving engines in their custody directly to NAVAIR. They are responsible for submitting reports on engines in their physical custody. The methods listed above differ from controlling custodians in that they physically transfer engines in and out of their custody from NAVAIR while controlling custodians physically transfer engines WITHIN their commands without prior NAVAIR approval.

ROLLING CUSTODIANS

NAVAIR has designated three major commands as aircraft engine controlling custodians. These custodians are Commander, Naval Air Force, Pacific; Commander, Naval Air Force, Atlantic; and Chief of Naval Air Training.

These controlling custodians are responsible for the receipt, accounting, and distribution of all engines under their area of cognizance. They are responsible for submitting transaction reports to NAVAIR for all of their subordinate commands. The controlling custodians issue and implement instructions informing their commands of procedures for requisitioning engines and transaction reporting.

REQUISITIONING PROCEDURES

The type commanders (controlling custodians) are responsible for the management and distribution of engines in their respective custody. The following paragraphs discuss some of the requisitioning and distribution policies of NAVAIRLANT/COMNAVAIRPAC.

Distribution Policy

The type commander, as the overall engine custodian, directs spare engine distribution among commands fleet air (COMFAIRs) to support their requirements. Cognizant COMFAIRs are responsible for the management, distribution, receipt, and reporting of all aircraft engines, regardless of status or condition, when located within their cognizant area.

Engine Requisitioning

The following guidelines are established for engine requisitioning:

1. Organizational activities requisition engines from the supporting supply activity.
2. Supply officers aboard aircraft carriers and amphibious assault ships requisition engines for initial outfitting or predeployment from the type commander.
3. While deployed, the ship's supply officer submits requisitions to cognizant COMFAIRs. For example, in the case of ships deployed to WESTPAC, requisitions are submitted to COMFAIRWESTPAC.
4. Normally, COMFAIR spare engine pools are replenished automatically by the type commander based on engine transaction reports. During periods of anticipated high usage or other unusual circumstances, COMFAIRs requisition the additional engines required from the applicable type commander.

ENGINE TRANSACTION REPORT (ETR)

The engine transaction report (ETR) forms the basis of the engine replenishment and distribution system. An ETR must be submitted each time that an engine changes status. The report may be submitted on an EAM card or by naval message (figure 9-1). For either method, the fields (column headings) are the same. No matter what form is used, the AK will be closely involved with ETR preparation or the interpretation of incoming reports. The ETR, as submitted by message, is discussed in this section. The discussion includes a definition of each reporting field of the ETR, an explanation of the STAR and status codes used on the report, and the various reporting steps and channels.

ETR Format

The ETR message text format consists of a minimum of 16 different fields (columns) lettered from A through O plus the column G1. Some controlling custodians (such as CNAL) have two additional columns—BUNO (bureau number) and ETR number (column P). Fields A, B, C, D, E,

JOINT MESSAGEFORM										SECURITY CLASSIFICATION																									
										UNCLASSIFIED																									
RAST	DRAFTER OR RELEASE TIME	PRIORITY	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS	FOR MESSAGE CENTER/COMMUNICATIONS CENTER ONLY																									
		ACT	INFO							DATE-TIME	MONTH																								
OF											YEAR																								
MESSAGE HANDLING INSTRUCTIONS																																			
<p>FROM: SUPD NAS NORFOLK</p> <p>TO: COMNAVAIRLANT</p> <p>INFO: SUPD NAS JACKSONVILLE</p> <p>NAVAIRWORKPAC NORFOLK</p> <p>BT</p> <p>UNCLAS //N13700//</p> <p>SUBJ: NAVAIR 13700-1 AIRCRAFT ENGINE TRANSACTION REPORT</p> <table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>G</th> <th>G1</th> <th>H</th> <th>I</th> <th>M</th> <th>O</th> <th>P</th> </tr> </thead> <tbody> <tr> <td>32</td> <td>73030</td> <td>J52P</td> <td>6A</td> <td>0636597</td> <td>00188</td> <td>NA</td> <td>NA</td> <td>0043</td> <td>NA</td> <td>00207</td> <td>0075</td> </tr> </tbody> </table> <p>AMPLIFYING REMARKS: 0636597 SHIPPED 3030 MOOE I, TCR 00188-2124- G380-XXX. LAST ETR 0074 DTG 292050Z JAN 73.</p>												A	B	C	D	E	G	G1	H	I	M	O	P	32	73030	J52P	6A	0636597	00188	NA	NA	0043	NA	00207	0075
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<p>A</p> <table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>G</th> <th>G1</th> <th>H</th> <th>I</th> <th>M</th> <th>O</th> <th>P</th> </tr> </thead> <tbody> <tr> <td>21</td> <td>73031</td> <td>T58GE</td> <td>10</td> <td>0281871</td> <td>04506</td> <td>NA</td> <td>NA</td> <td>0467</td> <td>62</td> <td>NA</td> <td>0076</td> </tr> </tbody> </table> <p>AMPLIFYING REMARKS: RECEIVED FROM MCAS CHERRY PT LAST ETR 0075 DTG 302115Z JAN 73</p> <p>(B)</p>												A	B	C	D	E	G	G1	H	I	M	O	P	21	73031	T58GE	10	0281871	04506	NA	NA	0467	62	NA	0076
A	B	C	D	E	G	G1	H	I	M	O	P																								
21	73031	T58GE	10	0281871	04506	NA	NA	0467	62	NA	0076																								

Figure 9-1.—Sample ETRs, (a) Reporting a transfer; (b) reporting a receipt.

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G, G1, H, I, M, and O are mandatory and MUST appear on every report. If no data is to be reported in these mandatory fields, the abbreviation NA (not applicable) is inserted in the column. Reporting fields F, J, K, L, N, and BUNO are used only when specifically called for by TYCOM instruction. The following is an explanation of the data inserted in each of these fields.

FIELD A. This field contains the engine status code. See table 9-1 for a listing of the codes that are applicable to the AK.

FIELD B. This field contains the Julian date. It is a five-digit figure denoting the

year and consecutively numbered day of the year. For example, 16 January 1983 would be reported as Julian date 83016. Whenever two transactions are reported on the same engine on the same day, the second transaction is postdated one Julian date.

FIELD C. The engine type, model, and manufacturer's code is entered in this column. No dashes are used. For example, a J79-GE engine is written J79GE.

FIELD D. The engine number is entered in this column. For example, for the J79-GE-8 engine the 8 is entered in this column.

Table 9-1.—Engine Status Codes Applicable to the AK

Status Code	Definition
1	Installed in an aircraft.
2	Serviceable spare engines. These are uninstalled engines that can be installed and operated without being turned over to a DOP or commercial overhaul facility for repair, overhaul, or other rework.
3	Denotes the transfer of an engine within the cognizance of the same controlling custodian.
4	Spare engine temporarily out of service. This code is authorized for use only by controlling custodians. It commences when the engine is placed out of service for the repair or modification and terminates when repair or modification has been completed.
5	Unserviceable engine awaiting shipment. This status commences on the date the engine is determined to be unserviceable and lasts until the date it is shipped to the appropriate DOP.
6	Unserviceable engine in-transit. This status commences on the date an engine is physically shipped to the DOP by the activity preparing the shipping document and terminates on the date it physically arrives at its destination.

FIELD E. The engine serial number is entered in this column. Alphabetic prefixes are never used and numeric prefixes are not used if both the prefix and serial number exceed seven digits. The following are examples of how serial numbers are written in this column:

AE13005 as 0013005

41-104240 as 0104240

1604 as 0001604

4210435 as 4210435

FIELD F. When used, this field contains the UIC of the controlling custodian.

FIELD G. This field contains the UIC of the reporting activity. It must contain five digits and will be preceded by zeros if less than five digits.

FIELD H. This column contains the complete aircraft model designation (up to five digits).

FIELD I. The engine running time since the last overhaul is reported in this column, dropping all tenths of an hour. Time is reported as four digits. For example 437.9 hours is reported as 0437 hours and 5 hours is reported as 0005.

If the engine has had no overhauls, the hours since new are reported in this column. Engines with less than 1 hour are reported fictitiously as having accumulated 1 hour.

FIELD J. When used, the time since new is reported in this column in whole numbers (without tenths) and is reported in five digits.

FIELD K. When used, the number of overhauls performed on the engine are reported in this field. If more than nine overhauls have been performed, alphabetic letters are substituted for the numbers; i.e., A = 10, B = 11, and C = 12.

FIELD L. When used, the number of complete engine repairs (CERs) since the last

Table 9-2.—STAR Codes Applicable to the AK

STAR code	Definition
60	Transfer to another custodian. This code is used to report the transfer of an engine to another controlling or NavAirSysCom FS custodian. However it is not used with status code 32.
61	Acknowledgement of receipt from another custodian. This code is used to report the receipt of an engine from another custodian. It is also used to report the receipt of repair parts which were delaying repair of engines in status code 24 for which STAR code 94 had previously been reported.
62	Acknowledgement of receipt within a controlling custodian. This code is used to report the receipt of an engine within a controlling custodian and is used with status codes 11, 22, and 24.
63	Transfer within a controlling custodian. This code is used to report the transfer of an engine within a controlling custodian. It is used with status codes 11, 22, and 24.
72	Removal of engine as unserviceable—administrative decision. The code is used to report the removal of an engine as unserviceable for such reasons as: Maximum operating time has been reached; or for test and evaluation.
73	Removal of engine as unserviceable—failure.
74	Removal of an engine as serviceable or temporarily out of service.
94	Report of repair part/component shortage. This code reports an engine which cannot be processed to a serviceable status for lack of parts and is used only after appropriate action has been taken to obtain these parts through supply channels. It is used in conjunction with status code 24.

overhaul are reported in this column. CERs are used when they are applicable to gas turbine engines only.

FIELD M. The Strike Transfer Acquisition Removal (STAR) codes are inserted in this column. These codes are used in conjunction with the status codes to report engine transactions. Table 9-2 contains a listing of STAR codes applicable to the AK.

FIELD N. This field is used to correct erroneous information previously reported.

FIELD O. When used, this field lists the UIC of the new reporting custodian when reporting the transfer of an engine.

BUNO FIELD. Some type commanders require the use of this field on certain ETRs. When used, it is located immediately adjacent to Field O.

FIELD P. Some type commanders require the use of this field to report a consecutive four-digit ETR number.

Figure 9-1 illustrates a sample message report showing some of the above columns.

Reporting Steps and Channels

Table 9-3 shows the different steps involved in reporting the issue of an RFI engine to a squadron

Steps Involved in Reporting the Issue of an RFI Engine to a Squadron and the Subsequent Turn-In of the Non-RFI Engine

Action	*ETR report		Activity that makes the ETR
	Status code used	Star code used	
Squadron requests an RFI engine.	N/A	N/A	N/A
Supply department issues the engine.	22	63	Supply department
Squadron receives the RFI engine.	21	62	Squadron
Squadron removes the non-RFI engine and turns it in to supply.	24	74	Squadron
Squadron installs the new engine.	11	N/A	Squadron
Supply turns the non-RFI engine in to AIMD for repair.	**24	63	Supply
AIMD reports receipt of the engine for repair.	**24	62	AIMD
AIMD orders parts to repair the engine.	**24	94	AIMD
The parts to repair the engine are received.	24	61	AIMD
Even after receipt of parts AIMD finds that it cannot repair the engine and so turns it in to supply as non-RFI.	***31	N/A	Supply department
Supply ships the non-RFI engine to the DOP.	32	N/A	Supply department

ETR reports are submitted to the controlling custodian (e.g., type commander) with information copies to the cognizant COMFAIR.

Applicable to gas turbine engines only.

If the item was put into a serviceable condition by AIMD it would be reported as status code 21 by the supply department.

Subsequent turn in of the non-RFI engine.
In the several transaction reports that are listed in table 9-3, the following actions take place:

The cognizant COMFAIR directs shipment of a serviceable engine to the ship to replace the unserviceable engine.

2. The air type commander directs replenishment of the COMFAIR's spare engine pool.

3. NAVAIRSYSCOM directs shipment of a new or overhauled engine to the type commander to replace an unserviceable engine that was shipped from the type commander to the DOP.

SHIPPING

When engines are shipped, a copy of the shipping document is forwarded to the consignee. In addition, notification of shipment is normally made by naval message. If engines are not received within the time frames prescribed by current instructions, the consignee takes follow-up action to determine the delay. Engine movements are closely monitored to reduce out-of-service time.

STOCK AND FINANCIAL RECORDS

The engine reporting system does not eliminate the requirement for regular financial and stock recording. The aircraft engine record may be used in lieu of the stock record card/stock status balance card. Adequate control must be established to ensure that the receipts and expenditures are reflected on the appropriate financial inventory control ledger.

CUSTOMER SERVICE

Have you ever waited in line for a service only to be told when you finally reached the window, "Come back tomorrow. The person who takes care of that is not here today"? Have you ever tried to get a question answered and had the feeling that the person to whom you were talking resented being bothered? Have you ever had to resubmit a special request chit because the original was lost?

There are no excuses for the poor customer service relations described in the above situations. As a professional in a service rating, you are not limited to performing only the tasks that make up the technical aspects of your rating. You must also develop and display positive customer service skills. These skills will enable you to deal more effectively with people. Basically, the customer service skills consist of the ability to listen to, work with, and speak to an individual as a PERSON and NOT as an object. If you use these skills, they will enable you to respond helpfully to the customer's needs. Remember the golden rule, "Do unto others as you would have them do unto you."

Never take the attitude that you are doing your customer a favor. You are not doing them a favor by serving them. That is your responsibility—that is why you are there.

The attitude you present to your customers will have a lasting effect on them and the Navy, especially if the service is negative. This attitude is usually directed not only toward the person giving poor service but also toward the Navy. Many times a Navy member will form a negative opinion toward the Navy after he/she has been "turned off" by people who should be providing service. This will affect his/her plans for reenlistment. On the other hand, the Navy benefits from good service. The satisfaction and gratitude for good service extends beyond the person providing it, to include the Navy.

Everyone in the Navy has needs and problems which must be met by someone else. However, the requirements are not the same for everyone. The senior petty officer will come to you for service; but, because of experience, may not require the explanations, interpretations, or advice that the younger, less experienced person requires. Also, the more experienced persons, because they are more aware of the service to which they are entitled, are less likely to accept poor service. Although we all depend on others for service, the greater need is probably felt by the young men and women on their first enlistment.

Your customers' needs are satisfied by how well you perform the duties of your rating. They have the right to expect considerate behavior displayed toward them. Customers want to be seen as individuals, and as individuals they deserve personal attention. They want you to treat them equally and fairly, to be concerned with their problems, and to be considerate of their time. They must have confidence in you because they recognize their lack of experience and knowledge and must rely on you for advice and proper action on their behalf. Improved customer relations is the answer to the problem. We have to convert the generalization of customer relations into examples of everyday action if we are to improve in this area.

Much more than mechanical skill is involved when you are working with people. A machine does not register your attitude toward it while you are working with it or on it. Your attitude may

an effect on the quality of your work, but machine could care less. The exact opposite when working with people. They do care. Attitude may affect the quality of your work, the greatest impact will be on the person getting that service. Your manner, your speech, the way you perform your job will influence another's attitude toward you, toward your ship, and toward the Navy.

Consider the term, "customer." It is a familiar word because you frequently have been a customer—at the store, the filling station, or even the doctor or dentist. Just because they called you a customer does not alter the fact that they were using you with a service—a customer service. In the military there are hundreds of customer services provided each day: the PN or YN issues leave papers, the DK registers an incident, the SH cleans and presses a uniform, the SK or AK procures material to be used in maintaining the ship or an aircraft. You must know your customer needs. Always bear in mind that the "customer" is the reason for your existence. If there were no customers, there would be little for you.

The "contact point" is the physical location where a customer goes to obtain a service. Contact points are manned by persons who provide direct services to customers. Some examples of contact points are listed below:

- The supply support center.
- Medical (sickbay).
- Ship's store.
- Barber shop.
- Supply response section.
- Personnel office.
- Disbursing office.
- Admin office.

Every ship and activity has contact points. The size of the command, number of personnel involved, and the scope of services provided are factors in determining how many contact points are needed. Contact points are where you and your shipmates go to obtain services, advice, and answers to questions.

"Skill" is the ability to use one's knowledge effectively. You have the professional skills of rating, your military skills, and skills relating to your off-duty activities. You also

have face-to-face skills that enable you to deal effectively with people. Aboard ship or at a station, you are face-to-face with customers. Here, the relationship becomes personal. It is the personal interaction (action or reaction) that requires face-to-face skills if it is to be effective. Good salesmen work on commission because it provides rewards proportional to their abilities—the most important of which are face-to-face skills. They LISTEN to the customers to understand their needs; they SPEAK to the customers to understand them; they make every effort to ensure customer SATISFACTION. Your effectiveness at the contact point depends upon how well you listen, speak, and respond to the customer's needs—your face-to-face skills.

"Attitude" can be described as the tendency to move toward a situation or away from it; to be either positive or negative in your outlook or feelings toward a person; a like or dislike for someone or something which is based on habit, a previously formed opinion, or snap judgement. Attitudes are hard to measure or grade, but our attitudes are readily observed. Attitudes are apparent in our actions and performance. You have heard it said about someone: "He has a poor attitude." How was this opinion formed? Was it from the way that person acted toward his co-workers or customers, or in the way that he completed his work assignments?

Look at some specific instances in which attitude plays a big part. Consider an aircraft mechanic who, in the process of making a PM check on a jet engine, sees a loose wire or badly worn part not included on his PM card and does nothing about it. "It's not my job." On a flight the next day, the engine malfunctions and flight operations are disrupted. Was this dereliction of duty? Probably. But we are not considering the legal aspect of the act but the attitude that prompted it. It is the same attitude demonstrated by the cook who scorches the egg; the liberty boat coxswain who drives into every wave to ensure lots of spray; or the HM who loses your shot record. The mechanic was not going up in the plane; the cook had already eaten; the coxswain was in the duty section and going no farther than fleet landing; and the HM will not have a sore arm from your shots. These men were not interested in doing a good job—just a job.

Attitudes have a major influence on face-to-face skills. Since attitude toward others is a reflection of attitudes toward ourselves, it is vital that I have a proper appreciation of ME. "Pride is the sense of one's own worth." In other words, it is recognition of who you are, what you are, and what you hope to become. "I may not be all that I would like to be, but I am not worthless. I have value as a person, I have accomplished certain things, and I have the ability to climb higher." This recognition of yourself enables you to meet each day with an expectation of winning rather than a certainty of defeat. People must have a degree of pride in themselves, their ability, and their job in order to put forth their best efforts. Otherwise, performance is characterized by the above examples. People do just what they are told to do, when they are told to do it.

Customer service can be defined as assisting your shipmates with their needs through prompt, considerate, and courteous action using technical skills and displaying a positive attitude.

PERSONAL INVENTORY

Good response at the contact point requires both ability and desire. A great deal has been written about the "can do" spirit of our country and certain segments within it. "Can do" seems to be most often used to present a capable, timely response to a national emergency or disaster. However, the same "can do" spirit must prevail if we are to provide high quality service when tasks are simply routine. While routine tasks may not present the same motivating challenge offered by those that appear to be more spectacular, the overall results are probably just as important. Perhaps what is needed is a companion for the "can do" ability—a "will do" willingness. If a customer comes to you with a problem and asks, "Can you help me?" You reply, "Yes, I can." To this you should add, by your attitude and action, "and I will." The checklist (table 9-4) provides a means of evaluating your performance. It is not intended to be used as a test with a numerical score or a "pass/fail" category. Hopefully, you will use it as an inventory—what abilities and traits do I now possess and demonstrate in my work. Read each item carefully and then decide which column best

describes your performance. Is it good, poor, or somewhere in between? This is not easy. It is difficult to be objective about ourselves. But the checklist can help you identify those areas in which your performance is not always at its best.

TELEPHONE PROCEDURES

Communication is the key to good customer service. You must be able to effectively use all methods of communication. Depending upon your assignment (the nature of your job), you may spend a good amount of time speaking to customers over the telephone.

Have you ever caught yourself nodding for "yes" while using the telephone? Many people make the same mistake. They forget how great a part facial expressions and gestures play in face-to-face conversations and that these factors are missing on the telephone. Misunderstandings can arise at the receiving end of the telephone because the speaker is not being clear. Keep your voice natural, pleasant, friendly, and dignified. Speak clearly so that people can understand what you are saying. Courteous language is a must at all times when using the telephone. The telephone is not an instrument over which to express your personal grudges, disappointments, or frustrations. Rather, it is an instrument by which you conduct official business. Never use profane language when talking over the telephone. When using the telephone, make your call as brief as possible. A military phone is not designed as an instrument on which to conduct personal business. It is for Official Use Only in the performance of your assigned duties.

Some of the most common voice deficiencies that will hamper a good telephonic delivery, whether you are making or receiving a call, are as follows:

1. Lack of Emphasis. One of the most frequent blocks to clear communication is the inability to lend emphasis to the "key" or main points of what is being said. It's a good idea to get your thoughts in order before you make your call. If your call is the least bit sensitive in nature, jot down what you want to say before you say it. If there is a point in your conversation that you want to get across to the listener,

Table 9-4.—Self-evaluation Checklist

	Or do you need—	
	Some Improvement	Much Improvement
Present good personal appearance		Careless about appearance
Excellent knowledge of rating		Poor knowledge of rating
Good work organization		Poor work organization
Office/personnel records in top condition		Office/personnel records sloppy
Knows the sources of correct information		Always has to ask someone else
Good command of English (written and oral)		Poor choice and use of words
Accepts responsibility		Avoids responsibility
Considerate of co-workers		After me, they come first
Pleasant, outgoing, friendly		Surly, argumentative, sarcastic
Treats each customer as an individual		They're just service numbers
Treats all customers with equality/fairness		Takes good care of friends
Gives customer only correct information		Give them an answer and get rid of them
Considerate of customers' time		Only considerate of own time
Genuine interest in customers' problems		Resents problems; they cause work
Takes the extra step to ensure customer satisfaction		I do my work

size it. Otherwise, your listener may not be able to identify the "must know" from the "do not know" information.

Weak Enunciation. Enunciation refers to the clarity of speech. If a person cannot clearly

and easily understand the voice on the other end of the line, the communication is poor. Some people speak rapidly and slur their words. Speaking slowly will cure this problem and enable other people to understand everything you say.

3. Errors in Pronunciation. Not only must words be clearly spoken, but they must be pronounced in an acceptable manner. Words which are mispronounced may cause confusion or even fail to be understood at all. If you are uncertain about how a word is to be pronounced, either look it up or use another word that has the same meaning.

When you place a call, identify yourself, then your office, or the watch you are standing. For example, "This is Seaman Jones, CDO/OOD phone watch, NTTC Meridian."

When you receive a call, always identify your office/watch, then yourself. For example, "Supply support center, Seaman Jones speaking, may I help you Sir" or "Building number 360 phone watch, Seaman Jones speaking, may I help you Sir."

Remember, the Navy's telephone system is not a video system. You do not know who the caller is until he/she identifies himself/herself. Always be respectful. A commanding officer from another command may be calling for your commanding officer. A response such as

"uh-huh," or "yea man" will reflect discredit toward your commanding officer.

When you receive a call and the caller desires to speak to someone else, make sure that you know who is calling. If the caller does not identify himself/herself, ask who is calling. For example, "May I say who is calling, Sir?" Never use abrupt questions such as "Who is this?" When the person being called is absent and the caller must wait for any length of time, tell the caller approximately how long he/she must wait. The caller may decide to call back or leave a message. In any case, always offer to take a message. Phone messages may be recorded on a Memorandum of Call (Standard Form 63), but plain paper will do as long as all the information is there. If no message was given, make a note of the call and place it or the message in a place where you can be sure the person for whom the call was intended will receive it. As mentioned before, through your courteous and professional skills, you will have an excellent opportunity to demonstrate good customer service by using standard Navy telephone procedures.

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AVIATION STOREKEEPER 2

NAVEDTRA 10394-1

congratulations! By enrolling in this course, you have demonstrated a desire to improve yourself and the Navy. Remember, however, this self-study course is only one part of the total Navy training program. Practical experience, drills, selected reading, and your desire to succeed are also necessary to successfully round out a fully meaningful training program. You have taken an important step in self-improvement. Keep up the good work.

HOW TO COMPLETE THIS COURSE SUCCESSFULLY

An errata comes with this course, indicating changes or corrections before any assignment. Do not change or alter the Rate Training Manual (RTM) or in any other way.

ASSIGNMENTS: The RTM pages that you are listed at the beginning of each assignment. Study these pages carefully before attempting to answer the questions in the assignment. Pay close attention to tables and diagrams because they contain information that will help you understand the text. Read the objectives provided at the beginning of each chapter or topic in the text and/or each set of questions in the course. The objectives state what you should be able to do after studying the material. The questions correctly helps you to achieve the objectives.

NOTES: Black dots (●) may be used in the text and correspondence course to indicate important or supplemental information. Highlight instructions for answering questions. Read these black dot entries. They will help you answer the questions and understand the material.

YOUR ANSWERS: After studying the assignment, you should be ready to answer the questions. Read each question carefully and select the BEST answer. Be sure your answer from the subject matter in the assignment may refer freely to the RTM and other information from others on the course. It may arise in the course. However, your answer must be the result of your own work. You are prohibited from copying or copying the answers of others or giving answers to anyone else taking

the same course. Failure to follow these rules can result in suspension from the course and disciplinary action by the Commander, Naval Military Personnel Command.

SUBMITTING COMPLETED ANSWER SHEETS: It is recommended that you complete all assignments as quickly as practicable to derive maximum benefit from the course. However, as a minimum, your schedule should provide for the completion of at least one assignment per month—a requirement established by the Chief of Naval Education and Training. Failure to meet this requirement could result in disenrollment from the course.

TYPES OF ANSWER SHEETS: If you received Automatic Data Processing (ADP) answer sheets with this course, the course is being administered by the Naval Education and Training Program Development Center (NAVEDTRAPRODEVCCN), and you should follow the instructions in paragraph A below. If you did NOT receive ADP answer sheets with this course, you should use the manually scored answer sheets attached at the end of the course and follow the directions contained in paragraph B below.

A. ADP Answer Sheets

All courses administered by the NAVEDTRAPRODEVCCN include one blank ADP answer sheet for each assignment. For proper computer processing, use only the original ADP answer sheets. Reproductions are not acceptable.

Recording Information on the ADP Answer Sheets: Follow the "MARKING INSTRUCTIONS" on the answer sheet. Be sure that blocks 1, 2, and 3 are filled in correctly. This information is necessary for your course to be properly processed and for you to receive

credit for your work.

As you work the course, be sure to mark your answers in the course booklet because your answer sheets will not be returned to you. When you have completed an assignment, transfer your answers from the course booklet to the answer sheet.

Mailing the Completed ADP Answer Sheets: As you complete each assignment, mail the completed ADP answer sheet to:

Commanding Officer
Naval Education and Training
Program Development Center
Pensacola, FL 32559-5000

The answer sheets must be mailed in envelopes, which you must either provide yourself or get from the local Educational Services Officer (ESO). You may enclose more than one answer sheet in a single envelope. Remember, regardless of how many answer sheets you submit at a time, the NAVETRAPRODEVEN should receive at least one a month. NOTE: DO NOT USE THE COURSE COMMENT'S PAGE AS AN ENVELOPE FOR RETURNING ANSWER SHEETS OR OTHER COURSE MATERIALS.

Grading: The NAVETRAPRODEVEN will grade your answer sheets and notify you by letter of any incorrect answers. The passing score for each assignment is 3.2. Should you get less than 3.2 on any assignment, a blank ADP answer sheet will be enclosed with the letter listing the questions incorrectly answered. You will be required to redo the assignment and resubmit a new completed answer sheet. The maximum score that can be given for a resubmitted assignment is 3.2.

Course Completion: When you complete the last assignment, fill out the "Course Completion" form in the back of the course and enclose it with your last answer sheet. The NAVETRAPRODEVEN will issue you a letter certifying that you satisfactorily completed the course. You should make sure that credit for the course is recorded in your service record.

Student Questions: Any questions concerning this course should be referred to the NAVETRAPRODEVEN by mail using the address listed above or by telephone: AUTOVON 922-1329, FTS 948-1329, or commercial (904) 452-1329.

Manually Scored Answer Sheets

If you did not receive ADP answer sheets with this course, it is being

administered by your local command and you must use the answer sheets attached at the end of the course booklet.

Recording Information on the Manually Scored Answer Sheets: Fill in the appropriate blanks at the top of the answer sheet. This information is necessary for your course to be properly processed and for you to receive credit for your work. As you work the course, be sure to mark your answers in the course booklet, because your answer sheets will not be returned to you. When you have completed an assignment, transfer your answers from the course booklet to the answer sheet.

Submitting the Completed Manually Scored Answer Sheets: As you complete each assignment, submit the completed answer sheet to your ESO for grading. You may submit more than one answer sheet at a time. Remember, you must submit at least one assignment a month.

Grading: Your ESO will grade the answer sheets and notify you of any incorrect answers. The passing score for each assignment is 3.2. Should you get less than 3.2 on any assignment, the ESO will not only list the questions incorrectly answered but will also give you a pink answer sheet marked "RESUBMIT." You will be required to redo the assignment and complete the "RESUBMIT" answer sheet. The maximum score that can be given for a resubmitted assignment is 3.2.

Course Completion: After you have submitted all the answer sheets and have earned at least a 3.2 on each assignment, your command will give you credit for this course by making the appropriate entry on Page 4 of your service record.

Student Questions: Any questions concerning the administration of this course should be referred to your ESO.

NAVAL RESERVE RETIREMENT CREDIT

This course is evaluated at 12 Naval Reserve retirement points which will be credited upon satisfactory completion of the entire course. These points are creditable to personnel eligible to receive them under current directives governing the retirement of Naval Reserve personnel.

es knowledge of procedures that
ed by naval personnel in the area
It includes a description of the
ion of supply functions, publica-
in performing supply functions,
ontrol, storage of supplies, stock
purchasing of supplies, material
cedures, supply support, and special
aving aviation storekeeper input.

Naval courses may include several types of questions—multiple-choice, true-false, matching, etc. The questions are not grouped by type but by subject matter. They are presented in the same general sequence as the textbook material upon which they are based. This presentation is designed to preserve continuity of thought, permitting step-by-step development of ideas. Not all courses use all of the types of questions available. The student can readily identify the type of each question, and the action required, by inspection of the samples given below.

MULTIPLE-CHOICE QUESTIONS

Each question contains several alternatives, one of which provides the best answer to the question. Select the best alternative, and blacken the appropriate box on the answer sheet.

SAMPLE

- s-1. Who was the first person appointed Secretary of Defense under the National Security Act of 1947?

1. George Marshall
2. James Forrestal
3. Chester Nimitz
4. William Halsey

Indicate in this way on the answer sheet:

	1	2	3	4	
	T	F			
s-1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_ _ _

TRUE-FALSE QUESTIONS

Mark each statement true or false as indicated below. If any part of the statement is false the statement is to be considered false. Make the decision, and blacken the appropriate box on the answer sheet.

SAMPLE

- s-2. All naval officers are authorized to correspond officially with any systems command of the Department of the Navy without their respective commanding officer's endorsement.

1. True
2. False

Indicate in this way on the answer sheet:

	1	2	3	4	
	T	F			
s-2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_ _ _

MATCHING QUESTIONS

Each set of questions consists of two columns, each listing words, phrases or sentences. The task is to select the item in column B which is the best match for the item in column A that is being considered. Items in column B may be used once, more than once, or not at all. Specific instructions are given with each set of questions. Select the numbers identifying the answers and blacken the appropriate boxes on the answer sheet.

SAMPLE

In questions s-3 through s-6, match the name of the shipboard officer in column A by selecting from column B the name of the department in which the officer functions. Some responses may be used once, more than once, or not at all.

A. OFFICER

B. DEPARTMENT

- | | |
|-------------------------------|---------------------------|
| s-3. Damage Control Assistant | 1. Operations Department |
| s-4. CIC Officer | 2. Engineering Department |
| s-5. Disbursing Officer | 3. Supply Department |
| s-6. Communications Officer | |

Indicate in this way on the answer sheet:

	1	2	3	4	
	T	F			
s-3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_ _ _
s-4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_ _ _
s-5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_ _ _
s-6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_ _ _

Assignment 1

Storekeeper Rating and Administration.

Items 1-1 through 1-25

In this course you will demonstrate that learning has taken place by correctly answering training items. The mere physical act of indicating a choice on an answer sheet is not in itself learning. It is the mental achievement, in whatever form it may take, prior to the physical act of indicating a choice that is the learning. The selection of the correct answer for a course training item indicates that you have fulfilled, at least in part, the learning objective(s).

The accomplishment of certain objectives, for example, a physical act such as drafting a plan, is not readily determined by means of objective type course items; however, you can determine accomplishment by means of answers to training items that you have acquired the requisite knowledge for the physical act. The accomplishment of certain other learning objectives, for example, the mental acts of comparing, recognizing, evaluating, choosing, selecting, etc., may be demonstrated in a course by indicating the correct answers to training items.

A comprehensive objective for this course has already been given. It states the purpose of the course in terms of what you will be able to do as you complete the course.

Detailed objectives in each assignment state what you should accomplish as you progress through the course. They may appear singly or in clusters of closely related objectives, as they are followed by items which will enable you to indicate your accomplishment.

Objectives in this course are learning objectives and items are teaching items. They are important things, they assist in learning, and they should enable you to do a better job in the Navy.

Self-study course is only one part of the total Navy training program; by its very nature it can take you only part of the way to a training goal. Practical experience, schools, on-the-job training, and the desire to accomplish are also necessary to round out a fully meaningful training program.

Learning Objective: Recognize the minimum requirements, duties, and responsibilities of the AK2 rating.

Aviation Storekeeper (AK) rating is listed in what Navy occupational field?

4
5
6
7

Aviation Storekeeper rating is what type of rating?

General
Service
Special
Subspecialty

1-3. Which of the following manuals lists the minimum requirements for each rate or rating?

1. NAVPERS 18068 (Series)
2. NAVSUP Manual, Volume II
3. NAVCOMPY Manual, Volume 1
4. OPNAVINST 4790.2 (Series)

1-4. Which of the following are NOT actions that an AK would take while performing duties of the rating?

1. Receives and stores aviation supplies
2. Confirms shipments
3. Makes excess reports
4. Orders ship's repair parts

Learning objective: Identify types and uses of official correspondence to include classified information.

1. NAVMAT Instruction 4440 (Series)
 2. NAVSUP Instruction 4235.5 (Series)
 3. SECNAV Instruction 5216.5 (Series)
 4. OPNAV Instruction 4790.2 (Series)
6. What format is used when preparing a joint letter?
1. Naval
 2. Speed
 3. Business
 4. Endorsement
7. When should a multiple-address letter be used?
1. When officials of two or more activities need to issue a letter concerning a particular subject
 2. When material is needed which belongs to the directives system
 3. When two or more activities are individually identified or addressed as a group
 4. When material is needed which belongs to the instruction system
- Which of the following is the most effective use of an endorsement?
1. Reply to a letter
 2. Return a letter
 3. Forward correspondence through the chain of command
 4. Each of the above
- You should use a business letter when corresponding with
1. the Army and Air Force
 2. agencies within the Navy Department
 3. the operating forces
 4. persons or agencies outside the DOD
- If you receive a piece of urgent communication not requiring electrical transmission, what type of correspondence would you use?
1. Joint letter
 2. Endorsement
 3. Naval letter
 4. Speedletter
- Which of the following factors determines whether or not an urgent communication will be sent by naval message?
1. Time
 2. Subject
 3. Classification
 4. Length
1. Between fleet and force commands and units of command under their jurisdiction
2. Between departmental activities within DOD
3. Between the Department of the Navy and Department of the Air Force
4. None of the above
- 1-13. What means should a writer use to convey thoughts from the writer to the reader?
1. Short words
 2. Short sentences
 3. Short paragraphs
 4. All of the above
- 1-14. Prior to writing an effective naval letter, what step should you accomplish first?
1. Drafting
 2. Outline
 3. Planning
 4. References
- 1-15. Which of the following characteristics should be a part of a well-written letter?
1. Short
 2. Clear and concise
 3. Direct and courteous
 4. Both 2 & 3 above
- 1-16. When writing a letter to a senior command, you should use which of the following phrases?
1. "Attention is directed"
 2. "Your attention is desired"
 3. "Your attention is invited"
- 1-17. A directive addressed to all hands is written in language that can be understood by which of the following personnel?
1. Senior people only
 2. Junior people only
 3. Technicians only
 4. All hands
- 1-18. When technical language is used in correspondence, the correspondence should be intended for which of the following types of readers?
1. Specialists within the technical field
 2. Well-educated readers
 3. Editors
 4. All hands

not contain which of the following
of speech?

verb and objective
jectives and adverbs
noun and subject
object and verb

preparing naval correspondence, you
place the topic sentence at the

beginning of a paragraph
middle of a paragraph
end of a paragraph

developing a paragraph, you should
information in what order?

chronological
logical
chronological
all of the above

preparing correspondence, what factor
you identify with first?

the person to whom the correspondence
addressed
the deadline or target date
the person responsible for the
correspondence
the intended length of the correspon-
dence

permits, what should you do after
you written a rough draft?

check it for grammar
check it for spelling
check it against related correspondence
do it aside and work on something else

person assumes responsibility for
correspondence?

the writer
the reviewer
the signer
the department head

business letter is prepared, which,
of the following types of paper is
to type the first page?

plain
letterhead
tissue
none of the above

when you type outgoing correspondence,
what color carbon tissue should you use
for the official file copy?

1. Green
2. White
3. Pink
4. Yellow

1-27. If a business letter is addressed to the
attention of an individual at a firm,
where is the information put in the
letter?

1. On the top line
2. Between the name and address of the
firm
3. Top center of the first page
4. Below the signature line

1-28. If a letter is to be sent in a window
envelope, at what location is the
address typed on the letter?

1. Left margin, two lines below the
letterhead
2. Left margin, four lines below the
letterhead
3. Left margin, seven lines below the
letterhead
4. Left margin, eight lines below the
letterhead

1-29. In a business letter, which of the below
listed complimentary closes is generally
used?

1. Yours truly,
2. Regards,
3. Sincerely,
4. Yours sincerely,

1-30. On a business letter, where is the
signature information typed?

1. At the center of the page, four lines
below the complimentary close
2. At the left margin, two lines below
the complimentary close
3. At the center of the page, two lines
below the complimentary close
4. At the bottom right-hand corner of
the letter, with at least a 1-inch
margin

1-31. When enclosures are forwarded with a
letter, the word enclosure is typed using
which of the following formats?

1. ENCL:
2. ENCLOSURE
3. Enclosure
4. Encl:

1. To request information
 2. To furnish information
 3. Both 1 and 2 above
33. When official correspondence is sent through the postal system, what type of envelope is used?
1. Plain white
 2. Airmail
 3. Franked
 4. Navy blue
34. Aboard an aircraft carrier, what term describes custody-type material?
1. Plant account
 2. Minor property
 3. Controlled equipage
 4. Plant property
-
- Learning objective: Recognize terms and procedures involved in the maintenance of plant account and equipment inventories and records.
-
35. Minor property is a term used ashore for Navy-owned personal property that is ordered for immediate use and the cost is less than
1. \$500
 2. \$1,000
 3. \$1,500
 4. \$2,200
-
- Minor property includes all Navy-owned land, buildings, and personal property of a capital nature that is located at shore activities. Questions 36 through 40, select the class from column B that most nearly matches the statement in column A.
- | <u>A. Statement</u> | <u>B. Class</u> |
|--|-----------------|
| 36. Buildings | 1. 1 |
| 37. Land | 2. 2 |
| 38. Industrial equipment costing \$1,000 or more | 3. 3 |
| 39. Industrial equipment costing \$1,000 or less | 4. 4 |
| 40. Utilitarian | |
1. 9
 2. 10
 3. 11
 4. 12
- 1-42. What department maintains the master file for class 3 and class 4 plant property?
1. Administrative
 2. Comptroller
 3. Maintenance
 4. Supply
- 1-43. What form is used to keep records in the master file on class 3 and class 4 plant property?
1. DD 1342
 2. DD 1348
 3. DD 1384
 4. DD 1306
- 1-44. Which of the following manuals contains detailed procedures for preparing plant property records?
1. NAVCOMPT Manual, Volume 3
 2. NAVSUP Manual, Volume I
 3. NAVSUP Manual, Volume II
 4. NAVCOMPT Manual, Volume 2
- 1-45. Aboard nonautomated ships, which of the following forms is/are prescribed for custody records?
1. DD Form 1348
 2. NAVSUP Form 306
 3. NAVSUP Form 460
 4. Both 2 & 3 above
- 1-46. Aboard ship, what department retains the original copy of the Controlled Equipage Custody Record?
1. Comptroller
 2. Supply
 3. Administrative
 4. Applicable department
- 1-47. What person(s) is/are responsible directly to the Secretary of the Navy for all policies relating to the maintenance and security of all classified information within the Navy?
1. Director of Naval Intelligence
 2. All commanding officers
 3. Deputy Chief of Naval Operations
 4. Chief of Naval Operations

Objective: Recognize procedures, and identification symbols in the preparation of official correspondence. Identify methods and procedures for handling and routing and outgoing correspondence.

destroyed, what total number of years will the command retain the certificate of destruction?

1. 1
2. 2
3. 3
4. 4

Requirement must a person possess in order to have access to and possession of classified information?

a. PO3 or above only
b. PO6 or above only
c. an officer
d. cleared for the particular security classification and have a need to know"

What is the total number of categories of classification?

e

ee

r

When marking classified letters, office orders, and other papers, at what location should you place the classification marking?

a. the bottom of the first page only
b. the top of the first page only
c. the top and bottom of the first page only
d. the top and bottom of each page

What are the following instructions concerning the marking of classified material?

AVINST 4TP3 (Series)
AVINST 4235 (Series)
Instruction 10340 (Series)
AVINST 5510.1 (Series)

When classified material is destroyed by what number of witnessing personnel will be present?

1-54. When classified material is received by supply and the material is DTO, supply is responsible for the material until which of the following actions has been accomplished?

1. The material has been delivered to the customer
2. The customer has been notified of receipt of classified material
3. The material has been turned over to the delivery unit
4. Supply has obtained a signature from a properly cleared customer on a proof of delivery

1-55. What methods might be used to send classified material through the postal system?

1. Regular mail
2. Registered mail
3. Certified mail
4. Both 2 and 3 above

1-56. Classified material carried in stock must be inventoried at what minimum interval?

1. Monthly
2. Quarterly
3. Semiannually
4. Annually

1-57. Secret material sent through the U.S. Postal System may be sent by which, if any, of the following means?

1. Regular mail unmarked
2. Certified mail
3. Air mail
4. None of the above

1-58. When securing safes or file cabinets that have combination locks, you should turn the lock what number of complete turns in one direction?

1. Six
2. Five
3. Three
4. Four

Publications

Text Pages: 2-1 through 2-17.

Learning Objective: Recognize the types and uses of NAVAIR publications.

- A. 04
- B. 15
- C. 17
- D. 51

Category Number Series

Figure 2A

In answering items 2-1 through 2-4, refer to figure 2A. Select the correct category number series that applies to the definition used as the question.

2-1. IPBs for catapults and arresting gear.

- 1. A
- 2. B
- 3. C
- 4. D

2-2. Aircraft hardware and rubber material.

- 1. A
- 2. B
- 3. C
- 4. D

2-3. Includes packing instructions for aircraft engines.

- 1. A
- 2. B
- 3. C
- 4. D

2-4. IPBs for machinery, tools, and test equipment.

- 1. A
- 2. B
- 3. C
- 4. D

75PAA-4, what does the
4 designate?

the publication is for
electronics equipment
the publication is the 16th
revision
the publication is a
structural repair manual
the publication is volume 4
of the P-3A/B IPB

Naval Aeronautic Publications
(NAPI) consists of what
number of parts?

9
0
1
2

you were to receive a component
number and wanted to find the
usable IPB, you would consult
one of the following NAPI
publications?

Support equipment
Cross-reference
Aircraft Application List
Equipment Applicability List
Section of the Directives
Application List deals with A-6
craft?

NA 00-500C.2
NA 00-500C.4
NA 00-500C.6
NA 00-500C.8

h of the following types of
atives is identified by
58?

Accessory bulletin
Avionics bulletin
Power plant bulletin
Photographic bulletin

A. NAVAIR 00-500A
B. NAVAIR 00-500C
C. NAVAIR 00-500M
D. NAVSUP P-2002

NAPI Parts

Figure 2B.

In answering questions 2-10
through 2-15, refer to figure 2B.
Select the NAPI publication that applies
to each statement used as the question.

2-10. It contains a listing of the
published and distributed NAVAIR
technical directives.

1. A
2. B
3. C
4. D

2-11. It provides the publication
numbers indexed by aircraft type,
equipment model number, or
component part number.

1. A
2. B
3. C
4. D

2-12. It is a Navy stock list of
publications and forms produced
on microfiche only.

1. A
2. B
3. C
4. D

2-13. Part I contains a
cross-reference of NAVAIR
technical manuals to microfilm
cartridge numbers.

1. A
2. B
3. C
4. D

1. A
2. B
3. C
4. D

1. I and II
2. II only
3. II and V
4. V

2-15. It has additional information such as Canceled, Canceled--No. superseding S/N, Canceled--Incorporated in Basic S/N, and Replaced by information.

1. A
2. B
3. C
4. D

2-16. The Navy Stock List of Publications (NAVSUP P-2002) is issued at what intervals?

1. Monthly
2. Quarterly
3. Semiannually
4. Annually

2-17. Which of the following paragraph designations shows that the paragraph is located in NAVSUP Manual, volume II, chapter 6?

1. 2-6-110
2. 1-2-120
3. 6-2-110
4. 2-1-620

2-18. To what volume of the NAVSUP Manual should you refer for information concerning NAVSUP publications and forms?

1. I
2. II
3. IV
4. V

2-19. Which of the following NAVSUP Manual paragraph numbers contains the organizational structure of a supply department ashore?

1. 11065
2. 23125
3. 24051
4. 15010

2-21. To what volume of the NAVSUP Manual should you refer for information on commissary store when a supply corps officer assigned?

1. I
2. II
3. IV
4. V

2-22. Instructions for shipping the personal property of civilian personnel being transferred under official orders can be found in what volume of the NAVSUP Manual?

1. I
2. II
3. III
4. V

Learning Objective: Identify the types and uses of NAVSUP publications which pertain to the handling, storage, management, and transportation of material.

- A. I
- B. II
- C. IV
- D. V

NAVSUP MANUAL VOLUMES

Figure 2C.

In answering items 2-23 through 2-28, refer to figure 2C. Select the volume of the NAVSUP Manual that contains each element of information listed as the question.

and Navy inventory managers.

- A
- B
- C
- D

Procedures for operating the clothing and small stores warehouse when a supply corps officer is assigned.

- A
- B
- C
- D

Procedures for ordering NAVSUP forms and publications.

- A
- B
- C
- D

General information regarding the Navy supply system.

- A
- B
- C
- D

Procedures for stock management field supply points.

- A
- B
- C
- D

Implements provisions of the military traffic management regulations.

- A
- B
- C
- D

Manual, Volume 11, contains information on storage and material handling?

- 1. 8
- 2. 2
- 3. 7
- 4. 4

2-30. NAVSUP manuals are kept current by changes. Which of the following information is contained within a change?

- 1. A transmittal statement by Commander, NAVSUP
- 2. A brief statement regarding changes effected or promulgated by the change document
- 3. A checkoff list showing each page and the change number applicable to that page
- 4. All of the above

2-31. When making changes to manuals, you should insert the "Record of Change Information Sheet" in which, if any, of the following locations?

- 1. In a separate folder
- 2. In front of each manual
- 3. In back with the index
- 4. None of the above

2-32. Individual pages cannot be ordered through the supply system. You must order the entire change to obtain a missing page of a NAVSUP manual.

2-33. The publication number for the NAVSUP Operating Procedures Manual for MILSTRIP/MILSTRAP is indicated by which of the following formats?

- 1. NAVSUP 437
- 2. NAVSUP P-437
- 3. NAVSUP Publication 437
- 4. Each of the above

message, it should be presented in which of the following formats?

1. Refer to NAVSUP P-485, paragraph 5127
2. NAVSUP 485, para 5127
3. NAVSUP Publication 485, paragraph 5127
4. Refer to NAVSUP Pub 485, paragraph 5127

- A. NAVSUP P-409
- B. NAVSUP P-410
- C. NAVSUP P-437
- D. NAVSUP P-484

NAVSUP PUBLICATIONS

Figure 2D.

In answering items 2-35 through 2-38, refer to figure 2D. Select the NAVSUP publication that applies to each item used as the question.

- 2-35. Provides basic procedures for packaging material for shipment by activities with limited packaging facilities.

1. A
2. B
3. C
4. D

- 2-36. Used for indoctrinating and training fleet personnel in MILSTRIP procedures.

1. A
2. B
3. C
4. D

MILSTRIP and MILSTRAP document

1. A
2. B
3. C
4. D

- 2-38. Takes precedence over conflict provisions contained in other ply system manuals or directives.

1. A
2. B
3. C
4. D

- 2-39. An AK should refer to what publication for information on the procedures for requisitioning of material ashore?

1. NAVSUP P-410
2. NAVSUP P-437
3. NAVSUP P-485
4. NAVSUP P-519

- 2-40. What chapter of NAVSUP P-437 contains financial fund codes used to requisition material for stock?

1. 7
2. 5
3. 3
4. 4

- 2-41. Which of the following NAVSUP publications is NOT distributed afloat?

1. NAVSUP P-437
2. NAVSUP P-485
3. NAVSUP P-519
4. NAVSUP P-467

- 2-42. Changes to the NAVSUP P-437 are published at what minimum interval?

1. Monthly
2. Quarterly
3. Annually as required
4. Periodically as required

the various identification publications used afloat?

5
2
6
4

- A. NAVSUP P-437
B. NAVSUP P-485
C. NAVSUP P-519
D. NAVSUP P-2002

NAVSUP PUBLICATION

Figure 2E.

ing items 2-44 through
r to figure 2E. Select
publication that contains
of information used as the

igned primarily for nonauto-
ed ships, but much of the
ormation and policy that this
lication contains is appli-
e to all afloat supply
artments, including those
ps that are automated.

A
B
C
D

tains the detailed procedures
the operation of the Shipboard
form Automated Data Processing
tem (SUADPS) (AV-207).

A
B
C
D

ormation about the military
istance program can be found
this publication.

A
B
C
D

ashore supply procedures for
material movement and expendable
ordnance.

1. A
2. B
3. C
4. D

2-48. Issued quarterly, this publica-
tion is on microfiche only and it
replaces the previous edition in
its entirety.

1. A
2. B
3. C
4. D

2-49. Procedures for inventory manage-
ment on automated ships can be
found in which of the following
publications?

1. NAVSUP P-485, Chapter 2
2. NAVSUP P-519, Chapter 3
3. NAVSUP P-485, Chapter 5
4. NAVSUP P-519, Chapter 6

2-50. Ordinarily, which of the follow-
ing items of supply would NOT
be listed in NAVSUP P-4105?

1. HIVAC items
2. Shelf-life items
3. Hazardous items
4. Unclassified consumable
items

2-51. A shelf-life item is deteriorative
in nature. To what publication
should you refer for the
appropriate handling procedures?

1. NAVSUP P-4105
2. NAVSUP P-485
3. NAVSUP P-467
4. NAVSUP P-437

2-52. The List of Items Requiring
Special Handling (LIRSH), NAVSUP
P-4105, is published in which of
the following sequences?

1. NIIN
2. FSC group
3. FSC class
4. Nomenclature

1. 7303.10
2. 5210.11
3. 4453.2
4. 4440.115

54. For conducting location audit procedures and reporting, what NAVSUP directive series should be consulted?

1. 4440.115
2. 4453.2
3. 5210.11
4. 7303.10

Learning Objective: Recognize the types and uses of ASO publications.

55. The Reference Section, C0001, is an index of the Navy aviation publications issued by the

1. Naval Air Systems Command
2. Commander, Naval Air Force Atlantic
3. Commander, Naval Air Force Pacific
4. Aviation Supply Office

- A. C0001
- B. C0018
- C. C0030
- D. P2300

ASO Publications

Figure 2F.

answering items 2-56 through 2-60, refer to figure 2F. Select the ASO publication that contains each item asked as the question.

56. Model codes used in section P2300.

1. A
2. B
3. C
4. D

1. A
2. B
3. C
4. D

2-58. Lists selected packaging data for repairable assemblies.

1. A
2. B
3. C
4. D

2-59. Aircraft engines are listed in part 2.

1. A
2. B
3. C
4. D

2-60. A master reference list for identifying aviation repairable assemblies.

1. A
2. B
3. C
4. D

2-61. The P2310 lists which, if any, of the following types of material:

1. Repairable aviation parts
2. Supporting repair parts of aviation material listed in section P2300
3. All consumable items in the Navy inventory
4. None of the above

2-62. The ASO Bulletin (NAVSUP Publication 296) is furnished to activities engaged in aviation supply only.

2-63. The NAVCOMPT manuals are designed to issue standardized accounting procedures for

1. Department of Defense personnel
2. aviation activities only
3. all persons in the Navy Department
4. for ships without supply offices

ing Objective: Recognize procedures involved in the procurement and maintenance of current publications.

Each of the following factors could be considered when determining the range of a technical library?

- Library customers
- Customer work
- Both 1 and 2 above
- Location of the customer work area

When deciding which publications to maintain in an aviation supply technical library, you should consider which of the following factors?

- Type of aircraft/equipment supported
- Maintenance capability of the activity
- Accessibility to a more comprehensive technical library in the area
- Each of the above

Which of the following is a major problem when managing a technical library?

- The tendency to order an insufficient quantity of publications
- The tendency to throw away seldom-used publications
- Both 1 and 2 above
- The tendency to maintain too many seldom-used publications

1. Distribution of technical publications?

1. Naval Publications and Forms Center
2. Navy Safety Center
3. Naval Air Technical Service Facility
4. Aviation Supply Office

2-68. In order for an afloat activity to be placed on the automatic distribution list for PMSO publications, the letter request with quantities desired and justification must be sent through which of the following activities?

1. Naval Publications and Forms Center
2. Naval Safety Center
3. Aviation Supply Office
4. Type Commander

Text: Pages 3-1 through 4-14

-
- Learning Objective: Recognize the terms used in the resources management system (RMS).
-
- 3-1. Which of the functions listed below are part of financial management?
1. Keeping records of receipts
 2. Keeping records of expenditures
 3. Verifying materials on hand
 4. All of the above
- 3-2. What is the correct time period for a fiscal year?
1. 1 January through 31 December
 2. 1 July through 30 June
 3. 1 October through 30 September
 4. 1 September through 31 August
- 3-3. Expense element codes are established by DOD for accounting and reporting purposes. They can be found in which of the following publications?
1. NAVSUP 2002
 2. NAVSUP Manual, volume 2
 3. NAVCOMPT Manual, volume I
 4. NAVCOMPT Manual, volume II
- 3-4. A shore station that is issued an operating budget from a fleet commander is known as a/an
1. major claimant
 2. responsibility center
 3. expense limitation holder
 4. subclaimant
- 3-5. A bureau, office, or command that is designated as an administering office under Operations and Maintenance Navy (O&MN) and that receives operating budgets directly from the CNO budget office is known as a/an
1. expense limitation holder
 2. responsibility center
 3. cost center
 4. major claimant
- 3-6. The fixed amount of money within operating budget for incurring obligations is known as the
1. obligational authority
 2. operating target
 3. accrual account
 4. expense element
- 3-7. Ashore, what term is generally used to denote funds issued by a responsibility center to a cost center?
1. Obligational authority
 2. Operating target
 3. Planning estimate
 4. Operating budget
- 3-8. What term is used to denote funds issued to an aircraft squadron or cost center by the type commander
1. Operating target
 2. Operating budget
 3. Appropriation authority
 4. Appropriation budget
- 3-9. The material division of a naval air station supply department functions as a
1. cost center
 2. OPTAR holder
 3. subcost center
 4. responsibility center

others defines which of the following terms?

Expense elements
Unfilled orders
Work units
Resources

request document for material which has been entered in the operating target log is known as

unfilled order
work units
expense elements
credit

Planning Objective: Identify policies and objectives of RMS.

Which of the following is an example of a work unit as used in RMS?

Color of label
Pounds moved
Date of the month
Hour of the day

Relative to aged unfilled orders and unmatched expenditures, a fleet commander's administrative key value ceiling is referred to as

a threshold
a work unit
the operating budget
the planning estimate

One advantage of RMS over previous financial management systems is that it provides a responsible commander with a budget that includes which of the following information?

O&MN funds related to a specific tool only
Appropriated funds allotted to that activity only
Nonappropriated funds allotted to that activity only
All costs related to a particular mission

the AK, which one is of most concern to the AK?

1. Programming and budgeting
2. Management of inventory assets
3. Management of operating unit resources
4. Management of acquisition, use, and disposition of capital assets

3-16. An AK assigned to a fleet operational squadron should consult which of the following publications for financial information?

1. NAVSO ~3013
2. NAVSO P-3006-1
3. NAVCOMPT Manual
4. NAVSUP Manual

3-17. Which of the following is a basic objective of RMS as it applies to operating units?

1. To form an accounting system that assures the responsible commander that all resources are used up each year
2. To initiate a system whereby each aircraft squadron's commanding officer will know how much money the squadron receive for the next five years
3. To manage the acquisition, use, and disposition of all assets except capital assets
4. To use the total resources, either consumed or applied, in determining how much it costs to operate an activity

3-18. Which of the following groupings shows the normal sequence of steps in the DOD management cycle?

1. Planning, reporting, auditing, accounting, and programming
2. Planning, auditing, accounting, programming, and budgeting
3. Planning, programming, budgeting, accounting, reporting and auditing
4. Budgeting, programming, auditing, reporting, and accounting

resource requirements is referred to as

1. programming
2. budgeting
3. planning
4. reporting

3-20. The function of formulating one-year projections of resource requirements for a program is part of the process of

1. planning
2. accounting
3. budgeting
4. reporting

3-21. Accounting by the operating forces is kept to the absolute minimum. Formal accounting is done ashore. This policy was established by which of the following commands?

1. CNO
2. NAVCOMPT
3. NAVSUP
4. SECNAV

3-22. The financial responsibility for ordering a squadron's materials and services rests with the

1. type commander
2. squadron
3. NAVSUP
4. NAVCOMPT

Learning Objective: Identify methods, procedures, records, and reports which are involved when managing funds at the operating forces level.

3-23. The official accounting for operating targets issued by the type commands is performed by the

1. local disbursing office
2. finance centers
3. fleet accounting and disbursing centers
4. station comptroller

fleet units for review, validation, or corrections?

1. FAADCLANT
2. FAACDPAC
3. Both 1 & 2 above
4. Navy finance center

3-25. When should financial listings requiring validation/correction actions be returned by the OPTAR holder?

1. Weekly
2. Quarterly
3. With the end of the month OPTAR report
4. With the next OPTAR document transmittal report

3-26. Prior to putting in an unfilled order on the Aged Unfilled Order Listing, the FAADC holds it for what minimum number of days?

1. 30
2. 60
3. 90
4. 120

3-27. If an item on the Aged Unfilled Order Listing has been administratively cancelled and the money value is below threshold, when, if ever, is the credit posted to the the Requisition/OPTAR log?

1. When the "AD CANCEL" is made
2. When the Aged Unfilled Order Listing is sent to FAADC
3. When the next Summary Filled Order/Expenditures/Differences Listing is received
4. Never

3-28. Which of the following forms is used for the OPTAR Document Transmittal Report?

1. NAVCOMPT 2135
2. NAVCOMPT 2156
3. NAVCOMPT 2157
4. OPNAV 4790

Listing once each

1. week
2. month
3. quarter
4. year

Rejection codes used to annotate invalid transactions on the Summary Filled Order/Expenditure Difference Listing are found in which of the following publications?

1. NAVSO P-3013-2
2. OPNAVINST 4790.2 (Series)
3. NAVCOMPT Form 2156
4. NAVCOMPT Form 2157

When, if ever, is the Summary Filled Order/Expenditure/Difference Listing returned to FAADC?

1. Monthly
2. With the first document transmittal report after completion of the review and validation
3. With the first quarterly document transmittal report after review and validation
4. Never

The Detailed Filled Order/Expenditure/Difference Listing is sent to OPTAR holders at what interval?

1. Monthly
2. Quarterly
3. When requested by the OPTAR holder

Which of the following forms is used for the OPTAR Log?

1. NAVCOMPT 2155
2. NAVCOMPT 2156
3. NAVCOMPT 2157
4. OPNAV 4790

1. Monthly
2. Quarterly
3. Semiannually
4. Annually

3-35. Notification of OPTAR grants is normally issued by which of the following means?

1. Letter
2. Telephone
3. Message
4. Speedletter

Learning Objective: Identify storage practices at the operational level to include the terms used and responsibilities of the personnel involved.

3-36. When storing materials, which of the following practices should you follow?

1. Safety
2. Accessibility
3. Orderliness
4. All of the above

3-37. What person(s) is/are responsible for all the materials in the custody of the supply department?

1. Storage supervisor
2. Material officer
3. Both 1 and 2 above
4. Supply officer

3-38. Normally, an AX 2 assigned to the storage section of a shore activity works under the supervision of which of the following supervisors?

1. Storage officer
2. Senior petty officer
3. Civilian
4. Either 2 or 3 above, depending upon whether the section functions with a civilian supervisor or a military supervisor

STORAGE TERMS

- A. Dunnage
- B. Honeycombing
- C. Planograph
- D. Bulk Storage

- 1. A
- 2. B
- 3. C
- 4. D

3-45. In the early stages of planning the layout of a storage space, the planner should ensure that which of the following actions have been accomplished?

- 1. All divisions of the supply department have been consulted
- 2. The whole operation has been considered as a unit
- 3. Each storage space has been planned as an independent area
- 4. Each storage space has been devised so that it will hold only minimum amounts of material

Figure 3A.

In answering questions 3-39 through 3-44, refer to figure 3A. Select the storage terms applicable to the definition used in the question.

3-39. Supplies are withdrawn in a manner which results in vacant space that is not usable for storing other items.

- 1. A
- 2. B
- 3. C
- 4. D

3-40. A scale drawing of an approved storage layout.

- 1. A
- 2. b
- 3. C
- 4. D

3-41. Blocks used to secure supplies in stock.

- 1. A
- 2. B
- 3. C
- 4. D

3-42. Petroleum products usually stored in their original containers.

- 1. A
- 2. B
- 3. C
- 4. D

3-43. Pneumatic pillows used to support supplies in transit.

- 1. A
- 2. B
- 3. C
- 4. D

Learning Objective: Recognize the factors which influence the planning of storage facilities.

Factors affecting storage

- A. similarity
- B. Usage rate
- C. Characteristics
- D. Size/weight

Figure 3B.

In answering questions 3-46 through 3-49, refer to figure 3B. Select the factor affecting the type of material stored that is related to each of the statements used as the question.

3-46. The factor that largely determines both the type of storage aids required and the maximum height of the stacks.

- 1. A
- 2. B
- 3. C
- 4. D

section at which material will be stored.

- A
- B
- C
- D

the factor which must be considered when special handling methods or storage considerations are required.

- A
- B
- C
- D

the factor which is considered when off-loading or a change in deckload is anticipated.

- A
- B
- C
- D

sensitive material which has a high ratio of value to size and a high resale value, such as special clothing and flight clothing, are stored in limited access storerooms which have locks that cannot be passed by master keys. What other means of protection are used after regular working hours?

- A sealed lock
- A watch is posted
- Frequent inspections
- An AK is stationed in the storeroom

When making warehouse layout plans, which of the following factors should you consider?

- Working areas
- Storage aids
- Aisle arrangement
- All of the above

Which of the following factors of warehouse layout would NOT be listed on the warehouse planograph?

- Restrooms
- Offices
- Storage aids
- Working aisles

considered a working space?

- 1. Packing floor space
- 2. Office and locker rooms
- 3. Battery charging station
- 4. All of the above

3-54. Working areas in a warehouse should be located so that they meet which, if any, of the following criteria?

- 1. High ceilings
- 2. Low ceilings
- 3. Have access to a ramp
- 4. None of the above

3-55. When planning a receiving section ashore, you should consider which of the following factors?

- 1. Mission of the station
- 2. Volume of the material received
- 3. Size of the warehouse
- 4. Number of personnel which will man the section

3-56. Receiving materials while afloat is usually accomplished at which of the following locations?

- 1. Reception storeroom
- 2. Hangar deck only
- 3. A space opening on to the hangar deck only
- 4. Hangar deck and a space opening on to the hangar deck

3-57. You are planning the receiving area of your storage facility ashore. While doing this, which of the following factors is NOT involved with the planning?

- 1. Office space adjacent to the receiving area
- 2. Locker rooms for receiving area personnel
- 3. An area large enough to temporarily hold all material
- 4. A rail spur, as the activity is served by a railroad

- Under NAMP procedures, flight clothing is issued at which, if any, of the following locations?
1. At Designated delivery points
 2. At issue centers
 3. At the warehouse storeroom
 4. None of the above
-
- Learning Objective: Identify the methods used when storing various materials both ashore and afloat.
-
59. When determining the size of the space that you need for shipping and delivery, you should NOT consider which of the following factors?
1. Distance to the delivery points
 2. Volume of the material shipped
 3. Amount of the material delivered
 4. Frequency of the trips to the delivery points
60. Afloat, which of the following methods is used to ship critical components which are beyond the capability of the AIMD to the DOP?
1. Squadron aircraft
 2. Parcel post
 3. Off-load to another ship
 4. All of the above
61. One way that an ashore activity can save money when buying bins and racks for storage is to
1. check prices of the local store
 2. buy sale items
 3. check the excess property list
 4. Buy items through GSA
62. Bins are not normally used ashore for which of the following reasons?
1. Money value
 2. Practicality
 3. Space limitations
 4. Size
- 3-63. Which of the following is the main advantage of using drawers that latch for small material aboard a ship?
1. Space limitations
 2. Ease of inventorying
 3. Prevent damage in rough seas
 4. Ease of making issues
- 3-64. What is the standard size of large corrugated shelf boxes?
1. 10 x 12 x 16 inches
 2. 8 x 10 x 16 inches
 3. 8 x 10 x 12 inches
 4. 4 1/2 x 5 1/2 x 17 inches
- 3-65. You would NOT expect to find which of the following items in a metal box rack?
1. Shovels
 2. Pipes
 3. Tubing
 4. Steel bars
- 3-66. Cantilever racks are NOT described by which of the following statements?
1. Their height is limited only by the height of the warehouse
 2. They require more floor space than any other kind of rack
 3. They provide for optimum handling by forklift trucks
 4. Their specifications can be tailored to meet the needs of storage requirements
- 3-67. There are what total number of categories of aisles?
1. Five
 2. Two
 3. Three
 4. Four
- 3-68. What are the categories of warehouse aisles?
1. Service, fire, and working only
 2. Fire, service, working, and personnel
 3. Cross, working, fire, and service
 4. Transportation, service, personnel, and working

sies?

Personnel and cross
Service and personnel
Cross and transportation
Service and transportation

planned, the need for what type
of aisle may have been
eliminated?

1. Fire
2. Service
3. Working
4. Personnel

Storage and Stock Control

Text: pages 4-16 through 5-8

Learning Objective: Identify the principles used to plan storage layout.

- 4-1. A primary mission change results in excess storage space. As the AK in charge of the space, what action should you take?
1. Assign it to another division
 2. Spread the supplies throughout the area
 3. Save it for future expansion
 4. Use it for dead storage
- 4-2. Allocation of the aviation storage spaces aboard ship is made by which of the following officers?
1. Commanding officer
 2. Executive officer
 3. Supply officer
 4. Aviation stores officer
- 4-3. The detailed storage arrangements of storerooms aboard ship provide maximum storage capacity. Additionally, the arrangement allows for which of the following factors?
1. Security and safety of all stores
 2. Orderly arrangement of all stores
 3. Access to all stores
 4. All of the above
- 4-4. Essential material is stowed in various sections of the ship for which of the following reasons?
1. Ease of inventory
 2. Accessibility
 3. Reduce the effects of battle damage
 4. All of the above
- 4-5. Of the following methods, which one is the most practical for storing heavy or bulky items aboard ship?
1. Stowing them in the lower storage areas of the ship with their weight below the waterline
 2. Stowing them close to mechanical handling equipment
 3. Stowing them in a central storeroom
 4. Stowing them in storerooms; their weight is equally distributed on each side of the center line
- 4-6. What is the basic resource of the supply department ashore?
1. Storage space
 2. Location
 3. Equipment
 4. Personnel
- 4-7. If the existing storage arrangement in a warehouse is not satisfactory, which of the following actions should you take?
1. Start major rewarehousing projects using an improved plan
 2. Contact an aviation logistics firm to develop new plans
 3. Develop a 5-year program to redesign the warehouse
 4. Develop an improved plan and reposition stock during receipt and issue

Following lists of conditions
affect the amount of space
available in a warehouse?

Construction grade of the
warehouse, number and size of
windows, and location of
receiving element
Location, number and size of
doors, allowable floor loads,
and availability and size of
cranes
Sprinkler systems, heating
systems, and location of fire
valves and extinguishers
Local availability of
transportation, manpower for
material movement, and site
proximity to maintenance

Learning Objective: Identify
areas used for storage and
analyze the methods used in
connection with storage
procedures.

For SUADPS, what total number
locations can be listed in the
Inventory Stock Status and Location
Inventory (MSSLL)?

Five
Two
Three
Four

responsibility for requesting
MSSLL rests with

stock control
the supply officer
stores officer
storage section

When changes in location are
made, they are reported to what
department of the supply department?

Receipt section
Issue counter
Supply support center
Stock control

Is deemed adequate for storage
purposes. What is the basis for
this figure?

1. Gross space available
2. Intended stock level
3. Number of storage space subdivisions
4. Average quantity of stock carried in prior years

4-13. What method should be used to
withdraw material from bulk
storage?

1. By rows
2. From across the front
3. By alternate odd-even rows
4. By honeycombing

4-14. A storage assignment system must
be adaptable to local needs and
must take into account which of
the following factors?

1. Cost of material
2. Personnel assigned
3. Available resources
4. The location of the principal consumers

4-15. Relative to the mechanical
equipment used in handling stores,
which of the following is a
responsibility of the storage
supervisor?

1. Seeing that the drivers obtain operators licenses
2. Ensuring that the equipment is kept in good mechanical condition
3. Ensuring that the equipment is operated safely and carefully at all times
4. All of the above

Learning Objective: Identify
the terms used in the shelf
life program and recognize
procedures of the shelf
life program.

shelf life action (SLA) code and a shelf life (SL) code?

restrictions and has more than months of shelf life remaining.

1. The SLA code shows the type of restorative action required while the SL code shows the life span of the item
2. The SLA code shows the life span of an item while the SL code shows the type of inspection or test required
3. The SLA code specifies the life span of an item while the SL code specifies the extension of the life span after check and test
4. The SLA code shows the test, inspection, or other restorative action required while the SL code specifies any extension to the normal life span of the item

1. A
2. B
3. C
4. D

4-21. An item that has between 90 to 180 days of shelf life remain

1. A
2. B
3. C
4. D

4-22. Which of the following statements does NOT describe a procedure that you should follow to ensure an adequate shelf life program

1. The shelf life material should be identified upon receipt
2. Replacement stock should be ordered in a timely fashion
3. The newest material should be issued first
4. No overage material should be issued to end users

4-23. Which of the following is NOT a major problem in material storage afloat?

1. Accessibility of material in the storage areas
2. Size and weight of materials to be stored
3. Number of personnel available for working parties
4. Temperature and humidity in the storage areas

4-17. Which of the following NAVSUP publications contains a complete listing of SLA codes?

1. 485 and 4105 only
2. 437 and 485 only
3. 437 and 4105 only
4. 437, 485, and 4105

4-18. How many types of shelf life items are in existence?

1. Five
2. Two
3. Three
4. Four

A
B
C
D

Condition Codes

Figure 4A.

In answering items 4-19 through 4-21, select from figure 4A the condition code that is defined in the item.

4-19. An item that has less than 90 days of shelf life remaining.

1. A
2. B
3. C
4. D

out of a storeroom poses
ger to personnel. In order to
id this danger, the storage
ervisor or aviation stores
icer should make which of the
lwing arrangements for
ring engines?

All aircraft engines should
be stored on the hangar deck
Engines should not be broken
out from below deck
storerooms until the ship is
in port
One of each type of engine
should be stored on the
hangar deck
One of each type of engine
should be stored on the
weather deck

ch of the following is NOT a
son for closely supervising
movement of aircraft control
faces into or out of storage?

Their susceptibility to
damage while being handled
The tendency of those
handling them to become
careless
The need to store them so
they will not shift during
ship movement
The inherent threat of
pilferage

ng Objective: Identify
anches within the control
on ashore and recognize
sponsibilities of the
s branches within the
l division.

4-26 through 4-32 deal with
ashore.

t is the largest clerical
ision of a supply department?

Food service
Material
Control
Delivery

Of a supply department is NOT a
part of the control division?

1. Food service
2. Issue control branch
3. Stock control branch
4. Purchasing branch

4-28. The issue control branch is
divided into which of the
following sections?

1. Delivery
2. Issue
3. Special program
4. Both 2 and 3 above

4-29. Which, if any, of the following
sections furnishes supply status
to customers?

1. Issue
2. Receipt
3. Delivery
4. None of the above

4-30. When required, what element in
the supply department prepares
stock status reports?

1. Receipt control
2. Stock control
3. Issue control
4. Special programs

4-31. What element in the supply
department is responsible for
follow-up actions on contractors?

1. Stock control
2. Issue control
3. Receipt control
4. Special programs

4-32. What element in the supply
department is responsible for
placing orders for material not
available in the supply system?

1. Special programs
2. Receipt control
3. Issue section
4. Purchase branch

Learning Objective: Recognize
the organization of an afloat
supply department under the
Shipboard Automated Data
Processing System (SUADPS).
Identify stock control
procedures under SUDAPS.

1. Supply office personnel
2. Stock control personnel
3. Storage personnel
4. Data processing personnel
- 4-34. Under the Naval Aviation Maintenance Program (NAMP), which, if any, of the following components of a supply department meets the requirements of SUADPS as a point of contact between the shipboard customer and the supply division?
1. Supply support center
2. Stock control
3. Supply office
4. None of the above
- 4-35. What individual coordinates computer input and distributes computer output?
1. Systems analyst
2. Computer operator
3. Data processor
4. System coordinator
- 4-36. Under SUADPS, what component of the supply department performs all machine-related functions and maintains the magnetic tape files?
1. Supply office
2. Stock control
3. Data processing
4. Storage
- 4-37. The process by which accumulated transactions are keypunched and fed to the computer is known as
1. inputting
2. updating
3. coordinating
4. outputting
- 4-38. When do storage personnel forward issue and receipt documents to stock control?
1. On a daily basis
2. On a weekly basis
3. When an update is needed
4. When there is a location change
- take which of the following actions?
1. Check for notes or marks by SSC or storage personnel
2. Copy document data in triplicate
3. Ensure that all transactions are keypunched
4. Assign correct document identifiers
- 4-40. Normally, which of the following personnel initiates rough sum requests?
1. Stock control
2. Storage
3. Stores officer
4. Division officer
- 4-41. Which of the following personnel is responsible for submitting request forms to the system coordinator for inventories?
1. Storage
2. Inventory team
3. Stock control
4. Stores officers
- 4-42. Which of the following statements concerning flagged records on inventory is correct?
1. It indicates those records that must be inventoried manually
2. It prevents any other transaction from processing against the record until inventory count cards have been reentered
3. It identifies those records that are being inventoried for money value only
4. It prevents any records from being reentered in the computer
- 4-43. When a specific item needs to be inventoried, what action should stock control personnel take?
1. Notify the storage supervisor
2. Initiate a spot inventory request through the computer system
3. Notify the system coordinator
4. Manually prepare a spot inventory request

...the request for the data processing form?

System coordinator
Reporting officer
Stock control
Data services

1. COSAL
2. AVCAL
3. IMRL
4. MSP

...of the following financial reports is/are NOT prepared by computer?

- A. AVCAL
- B. IMRL
- C. COSAL
- D. AECL

AVCAL report
Flying hour cost report
OPTAR document transmittal report
Both 2 and 3 above

Figure 4B.

...er SUADPS, which of the following management reports/aids available to stock control?!

In answering items 4-50 through 4-54, select from figure 4B the abbreviation that applies to the definition used as the question.

Stock requirement reviews
Outstanding requisition status listings
MRF extensions based on cognizance symbols
All of the above

- 4-50. A tailored allowance list of support equipment.
1. A
 2. B
 3. C
 4. D

...ning Objective: Identify terms and abbreviations familiar to the Aviation Consolidated Allowance (AVCAL) Afloat.

- 4-51. A list of components that is installed in supported aircraft.
1. A
 2. B
 3. C
 4. D

...quantities of material required to support aircraft and ship are determined by use of the

- 4-52. A list of spare parts necessary to support ships installed equipment.
1. A
 2. B
 3. C
 4. D

AVCAL
COSAL
IMRL
AECL

...information is contained in Aviation Consolidated Allowance List?

- 4-53. A list of parts required to support flight operations.
1. A
 2. B
 3. C
 4. D

All the allowance lists which apply to a particular ship
The parts required to support the aircraft and equipment embarked on a particular aircraft carrier
The allowance list which supports the MAG flights only
All the parts required to support each type of equipment installed on an aircraft carrier

- 4-54. A cross-reference listing applicable to ARRs.
1. A
 2. B
 3. C
 4. D

support requirements?

1. Maintenance level
2. Number of aircraft supported
3. Flight hours to be flown
4. All of the above

4-56. There are what total number of levels of maintenance?

1. One
2. Two
3. Three
4. Four

4-57. If the maintenance level of an activity is lowered, the material no longer required is usually disposed of by what means?

1. Transferred to another activity
2. Returned to supply for stock
3. Stored for possible future use

4-58. An AK working in stock control of an organization which supports P-3 aircraft is NOT responsible for which of the following information?

1. The number of aircraft supported
2. The BUNO of aircraft supported
3. The serial numbers of all electrical equipment
4. The types of aircraft handling equipment required

4-59. The number of aircraft engines to be carried aboard a ship during a deployment is determined by the

1. ship's supply officer
2. ship's commanding officer
3. carrier air wing commander
4. type commander

4-60. What authority prescribes the level of stocks maintained afloat?

1. Inventory manager
2. Type or area commander
3. Ship's supply officer
4. Applicable AMO

if any, of the following personnel actions?

1. Storage personnel do not forward all of the receipt paper work to stock control
2. Stock control personnel do not code the input file properly
3. Squadron personnel load toolboxes with consumable parts and do not report consumption
4. None of the above

4-62. Based on usage data, at what point in a ship's deployment should downward adjustment be made on excess stock?

1. Towards the end of a deployment
2. At the beginning of a deployment
3. A minimum of 30 days into deployment
4. When the usage data rate is stabilized

Learning Objective: Recognize the responsibilities and identify the functions of the activities that are involved with the AVCAL.

-
- A. ASO
 - B. Type Commander
 - C. NAVSUP
 - D. Applicable Ship
-

Figure 4C.

In answering items 4-63 through 4-70, select from figure 4C the activity that is responsible for or actually performs the function used as the item.

4-63. Issues the initial outfitting directive.

1. A
2. B
3. C
4. D

p's planned deckload.

the AECL (with all changes) prior to forwarding it to ASO.

A
B
C
D

1. A
2. B
3. C
4. D

Provides ASO a SUADPS magnetic tape for aviation items that are assets on hand.

4-69. Reports the status of outfitting material received.

A
B
C
D

1. A
2. B
3. C
4. D

Establishes monthly flying hours for each aircraft model.

4-70. Provides representation in a quality review of each AVCAL.

A
B
C
D

1. A
2. B
3. C
4. D

Produces all R-cognizance requisitions into the supply system.

A
B
C
D

support requirements?

1. Maintenance level
2. Number of aircraft supported
3. Flight hours to be flown
4. All of the above

4-56. There are what total number of levels of maintenance?

1. One
2. Two
3. Three
4. Four

4-57. If the maintenance level of an activity is lowered, the material no longer required is usually disposed of by what means?

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2. Type or area commander
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4. Applicable AMO

if any, of the following personnel actions?

1. Storage personnel do not forward all of the receipt paper work to stock control
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3. Squadron personnel load the toolboxes with consumable parts and do not report the consumption
4. None of the above

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1. Towards the end of a deployment
2. At the beginning of a deployment
3. A minimum of 30 days into deployment
4. When the usage data rate is stabilized

Learning Objective: Recognize the responsibilities and identify the functions of the activities that are involved with the AVCAL.

-
- A. ASO
 - B. Type Commander
 - C. NAVSUP
 - D. Applicable Ship
-

Figure 4C.

In answering items 4-63 through 4-70, select from figure 4C the activity that is responsible for or actually performs the function used as the item.

4-63. Issues the initial outfitting directive.

1. A
2. B
3. C
4. D

p's planned deckload the ASCL (with all changes) prior to forwarding it to ASO.

- A
 - B
 - C
 - D
- 1. A
 - 2. B
 - 3. C
 - 4. D

Provides ASO a SUADPS magnetic tape for aviation items that are assets on hand.

4-69. Reports the status of outfitting material received.

- A
 - B
 - C
 - D
- 1. A
 - 2. B
 - 3. C
 - 4. D

Establishes monthly flying hours for each aircraft model.

4-70. Provides representation in a quality review of each AVCAL.

- A
 - B
 - C
 - D
- 1. A
 - 2. B
 - 3. C
 - 4. D

Produces all R-cognizance requisitions into the supply item.

- A
- B
- C
- D

Purchasing and Material Control

xt: Pages 6-1 through 7-2

Learning Objective: Identify the terms, regulations, and activities used when purchasing materials.

1. The AK involved with purchasing should consult which of the following NAVSUP publications?

1. 368
2. 437
3. 467
4. 468

- A. Contract
- B. Acquisition
- C. Change Order
- D. Delivery order
- E. Bid

Figure 5A.

answering questions 5-2 through 5-5, select from figure 5A the term that matches the statement used as the question.

2. Buying, leasing, renting, or otherwise obtaining needed supplies.

1. A
2. B
3. D
4. E

- 5-3. A contract modification signed only by the contracting officer.

1. A
2. B
3. C
4. D

- 5-4. An agreement between the government and a contractor.

1. A
2. B
3. D
4. E

- 5-5. A contractual document issued by the contracting or ordering office under an existing contract.

1. A
2. B
3. C
4. D

- 5-6. Small purchases are open-market buys that do not exceed what total dollar amount?

1. \$25,000
2. \$26,500
3. \$27,000
4. \$30,000

- 5-7. A contractor believes an act is legally binding, but the government official was not authorized to bind the federal government. The above statement refers to which of the following terms:

1. Supplemental agreement
2. Unauthorized commitment
3. Primary agreement
4. Authorized commitment

kept current through what
 changes
 amendments
 revisions
 discussions

approval by the FAR council
 review by the services
 investigation and solution
 subcommittee
 item heard by FAR council
 number assigned

Figure 5B.

to figure 5B. Select the
 1 sequence of events that
 allowed to accomplish a FAR
 on.

B, C, D, E
 C, E, D, A
 D, B, A, C
 D, C, B, A

authority issues Navy
 directing directives?

Secretary of Defense
 Secretary of the Navy
 Aviation Supply Office
 Navy Supply Systems Command

publications are kept
 current through the issuance of

revisions
 amendments
 changes
 discussions

of the following
 actions gives detailed
 requirements for appointing
 acting officers and
 finishing contract review
 ?

NAVSUP Pub 467
 NAVSUP Pub 437
 NCD
 FAR

directives affect purchasing
 efforts. Which of the following
 publications is the only one that
 carries the force and effect of
 federal law?

1. NAVSUP Pub 437
2. NAVSUP Pub 467
3. NCD
4. FAR

5-14. What instruction governs the
 conduct of Aviation Store-
 keepers when they are acting
 on behalf of the United States
 Government?

1. SECNAVINST 5370.2 (Series)
2. SECNAVINST 5360.3 (Series)
3. PASDOINST 1415.6 (Series)
4. OPNAVINST 4790.2 (Series)

5-15. What total number of types of
 controlled buying exist?

1. One
2. Two
3. Three
4. Four

5-16. Central buying by commodity is
 accomplished by

1. central control points
2. the aviation supply office
3. the Navy purchasing office
4. inventory control points

5-17. Which of the following are the
 primary bases for centralized
 area buying?

1. Specialization of functions
2. Centralization of buying
skills
3. Familiarization with sources
of supply
4. All of the above

5-18. Area and commodity buying are
 conducted under which of the
 following commands?

1. NAVAIRSYSCOM
2. NAVSUPSYSCOM
3. ASO
4. NAVMAT

exceed what total dollar amount?

1. \$ 500
2. \$ 1,000
3. \$10,000
4. \$20,000

5-20. What office/command grants activities the authority to make purchases on the open market?

1. CNO
2. NAVSUP
3. ASO
4. OPNAV

Learning Objective: Identify the procedures used to effect field purchases. Recognize the methods used for small purchases.

5-21. Which of the following is a procedure associated with field purchasing?

1. Preliminary purchase procedures
2. Special purchase procedures
3. Small purchases
4. Each of the above

● In questions 5-22 and 5-23, select the statement that best describes the item associated with field purchasing activities.

5-22. Control unit.

1. Reports completed actions on request documents
2. Assigns control sheets and initially routes the purchase document internally
3. Provides a timely flow of purchase documents
4. Specially handle scheduled priority documents

- request documents
2. Assigns control sheets and initially routes the purchase document internally
3. Provides a timely flow of purchase documents
4. Specially handle scheduled priority documents

5-24. What person(s) is/are responsible for analyzing each purchase document?

1. Contracting officer only
2. Commodity buyer only
3. Contracting officer or commodity buyer
4. Receiving AK

5-25. When analyzing a purchase document, which of the following actions is NOT an analysis responsibility of the contract officer or commodity buyer?

1. Determine proper format
2. Determine method of purchase
3. Transfer information from requisition to the purchase document
4. Log time the document is received

5-26. Which of the following information is usually included in the schedule accompanying an invitation for bid?

1. Specifications
2. Plans
3. Drawings
4. All of the above

5-27. Which of the following types of information must be furnished on any purchase requisition?

1. Price and quantity
2. Quality and quantity
3. Quality and price
4. Quantity and availability

5-28. Small purchases in the open market are usually limited to purchases which do not exceed what total dollar amount?

1. \$10,000
2. \$15,000
3. \$20,000
4. \$25,000

- purchase procedures for what type of purchases?
- Contract services
Personal services
Supplies and nonpersonal services
All of the above
- 1 purchases are accomplished which of the following means?
- Invitation for bid
Direct bid
Negotiation
- h of the following is a od for making a small ase?
- Open purchase
Imprest fund
Solicitation for bids
- 1 purchases may be made out solicitation of bids when total dollar amount does not ed
- \$ 250
\$ 500
\$1,000
\$1,500
- soliciting competition for ases in excess of \$1,000, many suppliers in the local e area must be contacted?
- One
Two
Three
Four
- mple and economical method purchasing items which do not ed \$150 is known as the
- open purchase fund method
imprest fund method
field fund method
competition fund method
- 5-35. When, if ever, can an activity make an imprest fund purchase that exceeds \$150 but does not exceed \$300?
1. Under emergency conditions
 2. At any time
 3. As directed by higher authority
 4. Never
- 5-36. Emergency conditions include requirements that have which of the following priority designators?
1. 7
 2. 5
 3. 3
 4. All of the above
- 5-37. Which of the following payments may NOT be made under the imprest fund purchasing method?
1. Parking lot fees
 2. Travel claims
 3. Parcel post
 4. COD charges
- 5-38. Unless specially authorized by NAVAIR, an activity is allowed what total number of imprest funds?
1. One
 2. Two
 3. Three
 4. Four
- 5-39. Imprest funds are limited to what proportion of the estimated monthly disbursements?
1. One-third
 2. One-fourth
 3. One-half
 4. Two-thirds
- 5-40. Personnel from which of the following offices may NOT be designated as a imprest fund cashier?
1. Supply office
 2. Disbursing office
 3. Admin officer
 4. Material office

review?

1. The imprest fund manager
2. The imprest fund approving officer
3. The supply department accountant
4. The disbursing officer

5-42. At what minimum interval must imprest inspections be made?

1. Monthly
2. Quarterly
3. Semiannually
4. Annually

5-43. Normally, cash advances are accounted for on a daily basis. Under unusual circumstances, accounting for cash advances may be delayed for what total number of calendar days?

1. 5
2. 7
3. 10
4. 14

5-44. What document serves as the imprest fund receipt?

1. Dealer's invoice
2. DD Form 1348
3. DD Form 1155
4. DD Form 1155R

5-45. Which of the following purchasing methods establishes a charge account system?

1. Imprest
2. Competition
3. Open purchase
4. Blanket purchase

Learning Objective: Identify the use of SF 44 and DD Form 1155.

5-46. To what reference should the A refer for a list of field purchasing activities authorized to make blanket purchase agreements?

1. NAVCOMPT Manual
2. NAVSUP P-437
3. NAVSUP P-467
4. NAVSUP Manual

5-47. Which of the following forms should you use to affect a BPA?

1. DD 1348
2. DD 1155
3. SF 368

5-48. Which of the following information can be found on a BPA?

1. Listing of mandatory information required on delivery tickets
2. Delivery instructions
3. Individuals authorized to make calls
4. All of the above

5-49. Under the BPA purchasing procedures, which of the following requirements is NOT eliminated if the purchase exceeds \$1,000?

1. Command approval
2. Imprest fund manager's approval
3. Solicitation from three qualified suppliers
4. Solicitation from at least one qualified supplier

5-50. Under the BPA method, what total number of copies of delivery tickets must be prepared for each shipment?

1. One
2. Two
3. Three
4. Four

5-53, select the one that best describes the term in question.

Primary invoice.

Provides an invoice supported by a receipted copy of each delivery ticket
Lists each item delivered
Provides an invoice to accompany each delivery
Provides an invoice of shipment destination

Repaired invoice.

Provides an invoice supported by a receipted copy of each delivery ticket
Lists each item delivered
Provides an invoice to accompany each delivery
Provides an invoice of shipment destination

Individual invoice.

Provides an invoice supported by a receipted copy of each delivery ticket
Lists each item delivered
Provides an invoice to accompany each delivery
Provides an invoice of shipment destination

What form should you use for over-the-counter purchases?

SF 44
SF 45
SF 368
SF 467

Learning Objective: Identify functions and responsibilities of the AIMD and the ICRL.
D. Identify the general use of the ICRL.

Which of the following functions are performed by an intermediate-level material control work center?

Verifying work stoppage requisitions
Flight operations OPTAR accounting
Verifying AWP status
Verifying AWP requisitions

center returns items to the CCS that are in what condition?

1. Locally repairable RFI items only
2. Non-RFI components certified BCM only
3. Locally repairable RFI items and non-RFI components certified BCM
4. Properly preserved items

5-57. Whether RFI or non-RFI, all components received by AIMD material control are processed through what element of the maintenance department?

1. Production control division
2. Repairable management screening unit
3. Aeronautical material screening unit
4. Component control section

5-58. Upon receipt of a component for check and test, AMSU ensures that which of the following items are attached to the component?

1. Logs
2. Records
3. VIDS/MAF
4. All of the above

5-59. What copy of the VIDS/MAF is signed by AMSU personnel to signify that a component was received?

1. Copy 1
2. Copy 2
3. Copy 3
4. Copy 4

5-60. What tool is used by AMSU to ensure that a component is within the repair capabilities of the ICRL?

1. CRPL
2. IMRL
3. AMMRL
4. ICRL

appropriate work center is the responsibility of

1. AMSU
2. CCS
3. SSC
4. RMS

5-62. Repair capability data on components processed by AIMD is contained in the ICRL. What is the basis of this data?

1. Future requirements
2. Past experience
3. Pool requirements
4. Operational support inventories

5-63. Repair capability contained in the master data bank is based solely on information provided by what type of activity?

1. Operating squadrons
2. Local supply activities
3. Organizational maintenance activities
4. Intermediate maintenance activities

which of the following determinations?

1. Fixer allowance quantities
2. Operational support inventories
3. Allowance change requests
4. All of the above

5-65. What element of a maintenance department processes repairable not inducted through a central AMSU?

1. Material control section
2. Production division
3. Supply support center
4. Component control section

5-66. When making changes to the ICRL you should use which of the following forms?

1. NAVSUP Form 1364
2. NAVSUP Form 1365
3. OPNAV Form 4790/11
4. SF 364

5-67. ICRL Codes, formats, and applications can be found in which of the following publications?

1. NAVAIRINST 4790.14 (Series)
2. NAVSUPINST 4790.6 (Series)
3. Both 1 and 2 above
4. OPNAVINST 4790.2 (Series)

Assignment 6

Control and Supply Support

Pages 7-2 through 8-4

Learning Objective: Identify hardware and forms used in VIDS and recognize the procedures for using the VIDS.

Which of the following information can be displayed on the VIDS?

- In Work
- AWP
- AWM
- All of the above

What is the purpose of the VIDS?

To provide management the ability to review the overall situation and determine available resources so duties can be carried out
To keep outstanding requisitions in order
To keep outstanding work orders on file until completed
To keep a record of requisition numbers used

Which form is used to transmit component requisition demands to supporting supply activity?

- NAVSUP Form 368
- OPNAV Form 4790/60
- OPNAV Form 4790/11
- NAVSU Form 1364

6-4. Which of the following material requisition forms may be used without prior approval?

- 1. OPNAV Form 4790/11
- 2. OPNAV Form 4790/60
- 3. OPNAV Form 4790/64
- 4. NAVSUP Form 1368

6-5. Priority and project codes are assigned by

- 1. ASO
- 2. material control
- 3. AMSU
- 4. production control

6-6. After the AK gives production control and the assigned work center the assigned requisition number part, what action is taken with regard to the requisition?

- 1. A copy is sent to SSC
- 2. A copy is filed in the tickler file
- 3. A copy is placed on the VIDS board
- 4. A copy is sent to AMSU

Learning Objective: Recognize the terms and procedures used in the application of the AMMRL and IMRL programs.

6-7. Data required for the effective management of SE at all levels of aircraft management is provided by which of the following programs?

- 1. IMRL
- 2. AMMRL
- 3. ICRL
- 4. NAMP

1. To document factual data and in-use asset information on all aeronautical equipment
 2. To keep up with in-use asset information on SE only
 3. To document factual and in-use asset information on SE only
 4. Each of the above
9. The information obtained from the AMMRL program is used by management personnel for which of the following purposes?
1. To measure material readiness
 2. To redistribute in-use assets
 3. To provide a base for SE requirement budgeting
 4. Each of the above
10. Accountable items with an assigned reporting code of R have a value of what minimum dollar amount?
1. \$ 50
 2. \$100
 3. \$150
 4. \$200
11. Items listed on the IMRL that cost less than \$200 are assigned which of the following codes?
1. C
 2. F
 3. L
 4. R
12. A status change on the IMRL of a C-coded item always requires a transaction report.
13. Which of the following codes is assigned to nonrepairable SE?
1. A
 2. C
 3. L
 4. R
14. To find information about data specifications for SE as it applies to a particular intermediate or organizational maintenance level, you should refer to which of the following lists?
1. AMRL
 2. IMRL
 3. ICRL
 4. ADMRL
- accountable SE?
1. All SE not being used
 2. SE that has not been used for the past 60 days
 3. SE that has not been used for 6 months
 4. Any on-hand quantity of SE deleted from the activity's IMRL
- 6-16. Which of the following items is NOT considered support equipment?
1. Automatic test equipment
 2. Shipboard arresting equipment
 3. Tow tractors
 4. Hydraulic test equipment
- 6-17. A consolidated listing of SE required by a particular activity to perform its assigned maintenance level functions can be found in which of the following lists?
1. AMMRL
 2. ADMRL
 3. IMRL
 4. ICRL
- 6-18. At what point is SE entered/ deleted in an activity's IMRL?
1. When received
 2. When inventoried
 3. When transferred
 4. Each of the above
- 6-19. Consolidated IMRLs are used for which of the following purposes?
1. Activity-wide tailoring of SE
 2. Navy-wide procurement of SE
 3. Activity-wide procurement of SE
 4. Navy-wide tailoring of SE
- 6-20. IMRL listings are divided into what total number of sections?
1. One
 2. Two
 3. Three
 4. Four

determine what item is allowed for a particular activity, you should consult what section of the IMRL?

Introduction
Cross-reference index
Body
Change list

determine the on-hand quantity for a particular item, you should consult what section of the IMRL?

Change list
Cross-reference index
Procurement index
Body

depending upon the type of activity to which the IMRL applies, the body of the IMRL may be broken down into subsections. If it is broken into subsections, the subsections may be further broken into what total number of parts?

One
Two
Three
Four

part one of a subdivided section of the IMRL lists SE that applies to

a particular type of aircraft
all engines supported
all avionics systems supported
all aircraft supported

part two of a subdivided section of the IMRL lists SE that applies to

a particular type of aircraft
a particular avionics system
items applicable to more than one aircraft
a particular engine system

Under the IMRL Line Item NR column, IMRL items are listed in which of the following sequences?

NIIN
NSN
Sequential
PSN

6-27. IMRL line item numbers in the IMRL Line Item NR column show what type of information?

1. Total number of items listed in the IMRL
2. Cost of each item
3. Primary item
4. Alternate item

6-28. When consulting the IMRL to find PSCMs and part numbers, you should look in what part of the identification data heading?

1. Directly below the NIIN
2. Directly below the NSN
3. Directly above the NSN
4. Directly above the NIIN

6-29. Where, in the body section of the IMRL, are alternate NSNs located?

1. Behind the prime item information section
2. Below the prime item information section
3. Above the prime item information section

6-30. What type of information is found in the descriptive data heading?

1. Prime item number
2. Unit cost of the prime item
3. Level of authorized material
4. Calibration requirements

6-31. If an I appears under the maintenance level heading, the SE is used at what level of maintenance?

1. Organizational only
2. Intermediate only
3. Organizational and intermediate
4. Depot

6-32. If an item is not subject to periodic calibration, what entry, if any, should you make in the CAL CODE column?

1. C
2. P
3. T
4. None

make in the P/P column to show that the item is available on a subcustody basis from the supporting AIMD/INA?

1. E
2. P
3. L
4. None

34. What does pre-position code E in the P/P column indicate?

1. The item is available on a subcustody basis from the AIMD
2. The item is calibratable at the organizational level
3. The item is available on an as-required basis
4. The item is not otherwise pre-positioned

35. If the pre-position column is blank, what is indicated about the item?

1. It is available on an as-required basis
2. It must be ordered by the organizational-level activity
3. It is available on a subcustody basis
4. It is calibratable at the organizational level of maintenance

36. The COMPUTED ALLOW column of the IMRL contains quantities authorized for each prime item as extracted from what list?

1. AMMRL
2. IMRL
3. ADMRL
4. ICRL

37. What do the letters UNN in the COMPUTED ALLOW column indicate about the item?

1. NAVAIR deviation
2. TYCOM deviation
3. Item is on hand but not part of the authorized allowance
4. Item is on hand and is part of the authorized allowance

quantity of a specific activity's IMRL and may be higher or lower than the computed allowance quantity. In what column of the IMRL is tailoring indicated?

1. RORD ALLOW
2. TOTAL AUTH ALLOW
3. TOTAL ON-HAND
4. COMPUTED ALLOW

6-39. The quantity of the prime and alternate items is indicated in the TOTAL ON-HAND column of the IMRL. The total on-hand quantity of the prime and alternate items counts toward the total of the authorized allowance of the prime item. Which of the following statements defines the total items?

1. The total of these quantities may exceed the total authorized allowance
2. The total may not exceed the total authorized allowance
3. The quantity of prime items is not combined with that of the alternate items

6-40. The part number cross-reference lists prime and alternate items in which of the following sequences?

1. Numeric-alphabetic
2. Alphanumeric
3. Numeric
4. Alphabetic

6-41. A listing of all prime and alternate items found in the body of the IMRL, beginning with part-numbered items followed by stock-numbered items, is found in what section of the cross-reference index?

1. Avionics
2. Noun
3. Part number
4. NIIN

6-42. The noun cross-reference index is referenced to the

1. IMRL prime item
2. IMRL alternate item
3. IMRL line item number
4. IMRL NIIN number

What is a section of the cross-reference index?

The part number cross-reference index provides a listing of the alternate items only
The noun cross-reference index provides a listing of the alternate items only
The NIIN cross-reference index provides a listing of the prime items only
The avionics cross-reference index gives a listing of applicable avionics systems

Under the restrictive codes are listed under the avionics cross-reference index. If L were listed under the LVC column of this index, what would it indicate about the use of the item?

The item is required on land only
The item is required on vessels only
The item is used on land or sea
The item is peculiar to complete engine repair

Which of the following is a type of change that is contained in the change list section of the IMRL?

Addition
Deletion
Change
All of the above

In addition to the change list section of the IMRL consists of a change in the

RPT code
Maintenance level
Quantity computed allowance
NSN

Who is the IMRL manager is directly responsible to which of the following officers for the management of the IMRL?

Maintenance officer
Supply officer
Material control officer
Production control officer

What is the frequency of the physical inventory?

1. Monthly
2. Quarterly
3. Semiannually
4. Annually

6-49. IMRL holders must report which of the following types of transactions?

1. Additions
2. Changes
3. Deletions
4. All of the above

6-50. What form should IMRL activities use for SE transaction reporting?

1. OPNAV Form 4790/60
2. OPNAV Form 4790/64
3. DD Form 1348
4. DD Form 1155

● In answering items 6-51 and 6-52, refer to figure 7-3.

6-51. When filling out a Support Equipment Transaction Report, you should enter which of the following information in Block 13?

1. Nomenclature
2. Prime NIIN
3. IMRL IT
4. Manufacturer's code

6-52. What information should you enter in Block 15 of the Support Equipment Transaction Report?

1. NIIN
2. IMRL IT
3. Manufacturer's code
4. Nomenclature

6-53. At what interval should a wall-to-wall inventory of an activity's SE be conducted?

1. Biennially
2. Annually
3. Semiannually
4. Quarterly

initiated by what activity?

1. ASO
2. TYCOM
3. ACC
4. Holding activity

55. Which of the following statements is NOT considered criteria for reporting excess SE?

1. Authorized IMRL items not required for the performance of mission responsibilities
2. SE found as a result of physical inventory for which no allowance exists
3. SE that exceeds the authorized IMRL allowance quantity
4. SE that has sustained damage

Learning Objective: Identify the organizational structure of the Navy supply system to include the policies, concepts, and communications in support of aircraft maintenance.

56. Providing material in support of the operation and maintenance of the Navy is the major responsibility of

1. depot-level activities
2. intermediate-level activities
3. organizational-level activities
4. the naval supply system

57. Material management involves a direct relationship between supply and

1. maintenance
2. ASO
3. TYCOM
4. operations

contact point for maintenance operations?

1. Material control branches
2. Supply support center
3. Maintenance operations
4. Supply response section

6-59. Material support meetings involving representatives from supply and organizational and intermediate level maintenance activities are held at what minimum interval?

1. Daily
2. Biweekly
3. Weekly
4. Monthly

6-60. Which of the following is NOT considered a material management responsibility of an INA?

1. Accurate determination of allowances
2. Full use of available resources to repair material
3. Proper management of repairable assets
4. On-station delivery of material

6-61. Personnel that maintain the OSI are responsible for issuing, receiving, storing, and preserving what type of items?

1. Items carried in a centralized storage area
2. Items carried in local stock
3. Items stored in the organizational-level warehouse
4. Items stored in the intermediate-level warehouse

6-62. At what minimum interval is the AWP validation performed?

1. Daily
2. Weekly
3. Biweekly
4. Monthly

6-63. What department initiates requests for material?

1. Operations
2. Supply
3. Maintenance

- Learning Objective: Identify the organizational structure, functions, location, and operation of the supply support center. Identify the supply documents and response standards used within the supply support center.
-
- the responsibility for the effective performance of the SSC division rests with which of the following officers?
1. Commanding officer
 2. Maintenance officer
 3. Supply support center officer
 4. Assistant maintenance officer
- the SSC officer is directly responsible to which of the following officers?
1. Commanding officer
 2. Supply officer
 3. AIMD officer
 4. Operations officer
- single point of contact for local maintenance and supply activities is the
1. material control center
 2. AIMD officer
 3. supply officer
 4. supply support center
- which of the following is the primary function of the SSC?
1. To deliver all material
 2. To operate preexpended bins
 3. To receive and store all aviation material
 4. To serve as a central point of contact within the supply department for maintenance activities requiring direct supply support
- determines the manning hours for an SSC?
1. Necessity for a 24-hour day
 2. Necessity for an 8-hour day
 3. Consistent with the operating hours of supported maintenance functions
- 6-69. Normally, what is the maximum number of copies of the Navy Maintenance and Material Management System Form used for each transaction?
1. One
 2. Two
 3. Three
 4. Four
- 6-70. The DD Form 1348 consists of what total number of parts?
1. Seven
 2. Two
 3. Six
 4. four
- 6-71. When making consumable issues, the AK should prepare what total number of copies of DD Form 1348m?
1. Five
 2. Two
 3. Six
 4. Four
- 6-72. When making repairable issues, the AK normally prepares what total number of copies of DD Form 1348m?
1. Six
 2. Two
 3. Three
 4. Five
- 6-73. Which of the following DD forms is used to process off-station receipts?
1. 1348-1
 2. 1348
 3. 1348m
 4. 1348-A

Supply Support and Special Programs

t: Pages 8-4 through 9-3

Learning Objective (continued):
Identify the supply documents
and response standards used
within the supply support
center. Identify the
responsibilities for
management of repairables.

In answering items 7-1 and 7-2,
refer to table 8-1.

Material ordered as priority 2
must be processed in what maximum
number of hours?

1. 1
2. 2
3. 3
4. 4

If an item is ordered as priority
13, what amount of processing time
is allowed?

1. 24 hours
2. 12 hours
3. 8 hours
4. 4 hours

Response time is individually
measured and recorded. This
information is reviewed by the
supply officer at what minimum
interval?

1. Daily
2. Weekly
3. Biweekly
4. Monthly

7-4. The requirement for operating site
repairables management is the
principle responsibility of the

1. SSC
2. CCS
3. AIMD
4. AMSU

7-5. When the OSI stock level of a
particular item becomes low, what
activity has the responsibility
for repairing a like item on a
priority basis?

1. Operating
 2. AIMD
 3. CFA
 4. Depot
-

Learning Objective: Recognize
the organization, functions,
and procedures of the units
that make up the supply
response section.

7-6. When an OMA orders material, what
unit of the supply response
section receives and ensures that
all of the required information is
on the requisition?

1. Technical research unit
2. Material delivery unit
3. Requisition control unit
4. Component control section

locate what the required information on requisitions consists of, the AK should refer to which of the following publications?

NAVCOMPT Manual
NAVSUP Manual
OPNAVINST 4790.2 (Series)
NAVAIR P-437

RCU processes the DD Form 1348 and then forwards it to the

MDU
PEB
SLU
TRU

What unit of the SRS is responsible for processing requisitions of delivery of material?

CCS
MDU
RCU
TRU

When TRU assigns the requisition stock number, it is forwarded to what unit for availability of material?

MDU
CCS
SLU
PEB

When a component requisition is received for a repairable item, TRU personnel check what list to find out whether the component is a turn-in-place item or a mandatory turn-in item?

ICRL
CRIPL
INRL
AMMRL

What is the purpose of the SLU?

To determine the quantity of an item on hand
To assist the inventory branch in locating material
To determine the availability and location of material
To make quarterly stock status reports

7-13. If a requisition is NIS, what unit is required to perform a physical warehouse check to verify the NIS?

1. CCS
2. RCU
3. TRU
4. SLU

7-14. When the MDU has delivered a component to a user activity, what entries should the AK ensure are made on the hardback copy of the DD Form 1348?

1. Time
2. Date
3. Signature of receiver
4. All of the above

7-15. After delivery of a component to MDU, the customer retains what copy of the DD Form 1348?

1. White copy
2. Green copy
3. Yellow copy
4. Pink copy

7-16. After a component is delivered to MDU, what copy of the DD Form 1348 is delivered to RCU for processing?

1. Hardback copy
2. Original
3. White copy
4. Yellow copy

7-17. A repairable item is delivered to the MDU with MTIR stamped on the DD 1348. If a proof of prior turn-in is not available, the customer signs what additional copy of DD Form 1348?

1. White copy
2. Green copy
3. Yellow copy
4. Pink copy

7-18. What section is responsible for managing preexpended bins?

1. CCS
2. AMSU
3. SRS
4. RCU

- items stocked in the PEB are limited to those items which are demanded a minimum of how many times per month?
1. Once
 2. Twice
 3. Three
 4. Four
0. Material cannot be stocked in the PEB if it exceeds the supply necessary for what length of time?
1. A 2-week supply
 2. A 30-day supply
 3. A 3-month supply
 4. A 6-month supply
1. Items whose value exceeds \$50 may be stocked in the PEB if prior approval is obtained from which of the following officers?
1. Commanding Officer
 2. Supply officer
 3. AIMD officer
 4. Maintenance control officer
2. Accounting for and management of all repairable material stored in LRCA storage areas are the responsibilities of
1. RCU
 2. AMSU
 3. SSC
 4. CCS
3. What unit of the CCS is responsible for maintaining control of components and their associated documents?
1. RCU
 2. DCU
 3. TRU
 4. SLU
4. The white copy of DD Form 1348 is put in the document suspense file. What does this action show about the component?
1. A demand has been placed for EXREP
 2. A demand has been placed for a consumable item
 3. A demand has been placed for a new component
 4. A demand has been placed for a repairable component
1. Part number
2. Priority
3. JCN sequence
4. NIIN sequence
- 7-26. The white copy of the DD Form 1348 is retained in the document suspense file until what copy of the VIDS/MAF is received from AIMD?
1. Copy 1
 2. Copy 2
 3. Copy 3
 4. Copy 4
- 7-27. What copy of DD Form 1348 is placed in the exchange-due file?
1. The white copy received from AIMD
 2. The yellow copy received from MDU
 3. The pink copy received from RCU
 4. The green copy received from SLU
- 7-28. After receipt of a new component listed in the CRIPL, a defective component must be turned in within what total number of hours?
1. 1
 2. 6
 3. 12
 4. 24
- 7-29. The induction-return due file contains copy 2 of the VIDS/MAF that is returned from AIMD. What method is used to maintain the file?
1. NIIN sequence
 2. JCN sequence
 3. Part number
 4. Priority

1348 is received from SSU,
2 of the VIDS/MAF is
warded to

AMSU
MMC
data processing
quality assurance/analysis

onent rotatable pools are part
what unit?

LRCA storage
AWP
SSU
RCU

a part for a component
going repair is not
lable, the component is in
status?

NIS
NMCS
PMCS
AWP

h of the following statements
cribes a function of the
unit?

It establishes holding areas
for AWP units
It establishes staging
areas for AWP components
Both 1 and 2 above
It maintains liaison with SSC

AWP unit is not authorized
ollow-up on off-station
isions to meet AWP
irements.

action is taken by AWP when
cannot repair an item to
condition, and the item is
warded to the supply
ening unit for processing to
DOP?

Retains the outstanding
requisitions for BCM'd item
Cancels the outstanding
requisitions for BCM'd item
Forwards outstanding
requisitions to AMSU
Files outstanding
requisitions in the document
suspense file

furnish AWP a listing of the
outstanding requisitions?

1. Daily
2. Weekly
3. Biweekly
4. Monthly

Learning Objective: Identify
the programs and procedures
used in the program
management branch.

7-37. Which of the following is a
function of the PMB section?

1. To manage NMCS/PMCS
requisition only
2. To expedite NMCS/PMCS
material only
3. To manage and expedite
NMCS/PMCS

7-38. The PMB section requires adequate
staffing, even at the expense
of other supply functions, for
which of the following
purposes?

1. To ensure all information
on the requisitions is
correct
2. To ensure the aircraft
readiness goals of the
CNO are achieved
3. To ensure the requisitions
are passed to the correct
inventory control manager
4. To ensure the aircraft
readiness goals of NAVAIR
are met

7-39. Normally, the PMB section is
staffed by which of the following
personnel?

1. AK1s
2. AK2s and above
3. Civilians
4. All of the above

AKs within the PMB section are responsible for which of the following functions?

1. To provide status and expected delivery dates to maintenance activities
2. To ensure material delivery is expedited
3. To ensure that receipts are properly screened
4. Both 2 and 3 above

An AK in the PMB section performs which of the following functions?

1. Ensures project codes are assigned
2. Ensures that financial ledgers have been posted
3. Assists inventory branch when inventorying repairables

Expediteurs should check which of the following sources of supply for requisitioned parts?

1. AIMD
2. Alternate
3. Off-station
4. Local

There are no assets in the system to repair an item BCM'd due to lack of test equipment. What action should the expediter take?

1. Pass the requisition to the inventory manager
2. Pass the requisition to the nearest supply center
3. Recommend the requesting activity cancel the requisition until test equipment is received
4. Consider repair of the failed component by another AIMD

7-44. How often are material obligation validation (MOV) listings furnished to the squadrons and OMAs?

1. Daily
2. Weekly
3. Biweekly
4. Monthly

7-45. At what interval are MOVs conducted?

1. Daily
2. Weekly
3. Biweekly
4. Monthly

7-46. The PMB section performs validations to ensure what rate of accuracy?

1. 92%
2. 95%
3. 98%
4. 100%

7-47. All possible sources of supply have been screened with negative results, and the requisition is back-ordered by the item manager. What action should the expediter take?

1. Send a supply-assist message to the type commander only
2. Send a supply-assist message to the type commander and inform the last known holding activity
3. Send a supply-assist message to the fleet ready action group (FRAG)

Learning Objective: Identify procedures used to establish and control a tool control program.

7-48. Which of the following publications should you consult for information on the tool control program?

1. OPNAVINST 4790.2 (Series)
2. NAVMATINST 10290.2 (Series)
3. PASDOINST 1415.6 (Series)
4. SECNAVINST 5360.3 (Series)

primary purpose of the tool control program?

- . To reduce the cost of tool replacement
- . To reduce the potential for tool-related mishaps
- . To reduce the amount of time needed to conduct an inventory
- . To reduce tool pilferage

The tool control program was established by the

- . type commander
- . wing commander
- . CHNAVMAT
- . NAVAIRSYSCOM

What is the basis of the tool control program?

- . To reduce the cost of tool replacement
- . To provide the instant-inventory concept
- . To reduce the potential for tool-related mishaps
- . To have tools available when needed

Which of the following activities is responsible for assigning a tool control program coordinator?

- . TYCOM
- . NAVAIRSYSCOM
- . NAVSUP
- . NAVMAT

The program coordinator is responsible for maintaining a standard tool control plan (TCPL) for which of the following types of equipment?

- . SE
- . Each type of aircraft
- . Each type of engine
- . Both 2 and 3 above

been formulated and released by NAVAIRSYSCOM, it is implemented by which of the following authorities?

1. Functional wing
2. Commanding officer
3. Aircraft controlling custodian
4. Fleet air commander

7-55. After the TCPL has been implemented, tools are procured and issued on a controlled basis by which of the following officers?

1. Material control officer
2. Assistant maintenance officer
3. Commanding officer
4. Maintenance officer

7-56. Which of the following is a function of the tool control coordinator?

1. To order spare tools
2. To stock spare tools for ready issue
3. To ensure all tool requests are itemized
4. To issue a blank-check chit for tools

7-57. Under the tool control program, the outside of tool containers are identified by which of the following markings?

1. Tool container number
2. Work center
3. Organization
4. All of the above

7-58. Which of the following actions should be considered when items contained in the tool container are too small for marking?

1. Delete from the container
2. Issue in pouches
3. Issue from the toolroom
4. Establish special accountability procedures

Assignment 8

ial Programs

Pages 9-13 through 9-14

Learning Objective: Identify the types of usable containers. Identify procedures used for requisitioning, shipment, repair, and reporting of reusable containers.

When does a reusable container lose its NSN identity?

1. When it is empty
2. When it is transferred to salvage
3. When it contains an item of supply
4. When it is in storage

What instruction lists reusable containers used in the aviation supply system?

1. PASDOINST 1415.6 (Series)
2. OPNAVINST 4790.2 (Series)
3. ASOINST 4000.9 (Series)
4. SECNAVINST 5370.2 (Series)

Within the aviation supply system, there are what total number of types of reusable containers?

1. One
2. Two
3. Three
4. Four

Carburetors are packaged in what type of container?

1. Cylindrical drum with molded cushion
2. Cylindrical drum with lidbolt design
3. Specially designed

8-5. In what type of container should rotors be stored?

1. Type one
2. Type two
3. Type three
4. Type four

8-6. Normally, the modification of containers to comply with a NAVAIR directive is accomplished by which of the following activities?

1. The local AIMD
2. The local OMD
3. The manufacturer
4. The applicable NARF

8-7. Initial outfitting of aircraft engines for an aircraft carrier would be requested from which of the following activities?

1. Type commander
2. Cognizant COMPAIR
3. NAVAIRSYSCOM
4. NAVSUPSYSCOM

8-8. Reusable, small empty containers should be shipped in which of the following configurations?

1. In boxes
2. In drums
3. Palletized
4. In cardboard boxes

8-9. Which of the following publications governs reporting empty reusable containers?

1. OPNAVINST 4790.2 (Series)
2. ASOINST 4000.9 (Series)
3. NAVSUPINST P-437
4. NAVSUPINST P-485

ainers reported to ASO by a
transaction item reporting
ivity?

Weekly
Monthly
As transactions occur
As they are shipped

arning Objective: Recognize
procedures for ordering and
trolling aircraft engines.

ontrol of aircraft engines is
omplished through the
ementation of which, if any,
the following types of
orting?

Stock status reporting
Engine transaction reporting
Quantity status reporting
None of the above

re are what total number of
AIRSYSCOM fleet support
todianians?

Seven
Six
Five
Four

t total number of aircraft
ine controlling custodians
a been designated by NAVAIR?

Six
Five
Three
Four

craft engine controlling
odians are charged with which
the following responsibilities
n regard to aircraft engines?

Distribution
Accounting
Reporting
All of the above

c activity submits engine
transaction reports to NAVAIR?

The ordering squadron
The issuing supply
The supporting AIMD
The controlling custodian

aircraft engine controlling
custodian?

1. Commander, Naval Air Force Atlantic
2. Commander, Naval Air Force Pacific
3. Naval plant representative
4. Chief of Naval Air Training

8-17. Initial outfitting of aircraft engines for an aircraft carrier is requested from which of the following activities?

1. Type commander
2. Cognizant COMFAIR
3. NAVAIRSYSCOM
4. NAVSUPSYSCOM

8-18. When, if ever, should an aircraft carrier supply officer submit requisitions for aircraft engine replacement to the cognizant COMFAIR?

1. During predeployment planning
2. While deployed
3. During high-time engine changes
4. Never

8-19. Spare engine pools that are maintained by the COMFAIR are replenished on what basis?

1. Automatically based on ETRs
2. By message from the nearest supply center
3. Requisitioned from the type commander
4. By message from NAVAIR

8-20. When is an ETR submitted on an engine?

1. Upon aircraft change of status
2. Daily
3. Weekly
4. Upon engine change of status

8-21. What method(s) is/are used to submit an engine transaction report?

1. Requisition
2. EAM cards only
3. Naval message only
4. EAM cards and naval message

Items 8-22 through 8-39 relate to the format for an ETR.

22. What information is contained in field A?

1. Organization code
2. Engine type code
3. Engine status code
4. Type of aircraft

23. When field F is used in an ETR, what information should be entered?

1. Total cost
2. UIC of the controlling custodian
3. UIC of the reporting activity
4. UIC of the receiving activity

FIELDS

A

E

G

I

Figure 8A.

Items 8-24 through 8-29, select the field of an engine transaction report that applies to the statement used as the item.

24. This field contains the UIC of the reporting activity.

1. A
2. E
3. G
4. I

25. This field contains the engine status code.

1. A
2. E
3. G
4. I

26. This field contains the engine serial number.

1. A
2. E
3. G
4. I

8-27. This field contains the engine running time since last overhaul or hours since new.

1. A
2. E
3. G
4. I

8-28. This field will not exceed seven digits.

1. A
2. E
3. G
4. I

8-29. This field must contain five digits.

1. A
2. E
3. G
4. I

8-30. Which of the following is an example of an entry in field E?

1. 0013005
2. AE13005
3. 41-104240
4. CX 10435

8-31. Which of the following is an example of an entry in field G?

1. T56-G
2. J79-GE
3. J79GE

FIELDS

H

J

K

M

Figure 8B.

In items 8-32 through 8-36, select the field of engine transaction report in which an entry should be made.

... aircraft maintenance

H
J
K
M
... since new (reported as whole
... not exceeding five
...).

H
J
K
M
...ber of overhauls performed on
engine.

H
J
K
M
... more than nine overhauls, A,
C, and so forth, are entered.

H
J
K
M
... R code.

H
J
K
M
... t field is used to correct
... viously reported erroneous
... ormation?

L
N
O
P

... t activity directs shipment of
engines to the TYCOM to
... lace an unserviceable engine
... pped to the DOP?

NAVAVNLOGCEN
NAVAIREWORKFAC
NAVSUPSYSCOM
NAVAIRSYSCOM

8-39. Engine movements are closely
monitored for which of the
following purposes?

1. To ensure the receiver knows the location of engines at all times
2. To ensure NAVAIR knows the location of engines at all times
3. To ensure the type commander knows the location of engines at all times
4. To ensure out-of-service time can be reduced

Learning Objective: Identify techniques used in customer service.

8-40. When dealing with customers, the AK should use which of the following skills?

1. Speak to
2. Work with
3. Listen to
4. All of the above

8-41. Which of the following personnel will not be likely to accept poor service?

1. Junior enlisted personnel
2. Recruits
3. Experienced personnel

8-42. One result of poor service by AK personnel could cause which of the following actions?

1. Customer might not reenlist
2. Customer will avoid your area
3. Customer might report you
4. All of the above

8-43. Which of the following is a telephone skill the AK should use when dealing with customers?

1. Speak cryptically
2. Use clear speech
3. Use slang
4. Speak in circles



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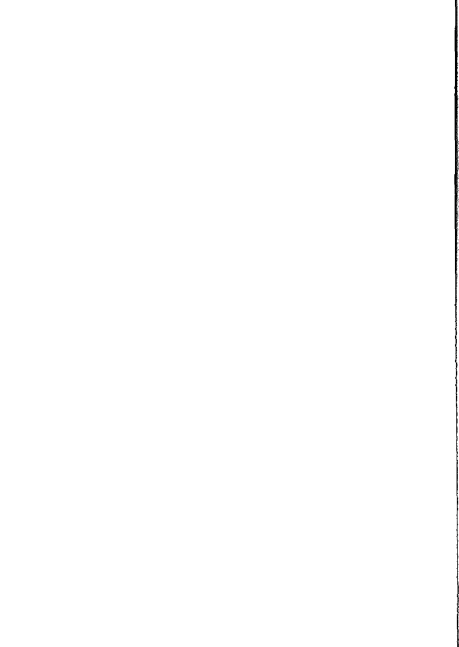
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First Middle ADDRESS Street/Ship/Unit/Division, etc.
 City or FPO State Zip
 SOC. SEC. NO. DESIGNATOR ASSIGNMENT NO.
☐ USNR ☐ ACTIVE ☐ INACTIVE OTHER (Specify) DATE MAILED

SCORE

3 4	1 2 3 4	1 2 3 4
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First Middle ADDRESS Street/Ship/Unit/Division, etc.

City or FPO State Zip

SOC. SEC. NO. DESIGNATOR ASSIGNMENT NO.

USNR ☐ ACTIVE ☐ INACTIVE OTHER (Specify) DATE MAILED

SCORE

3 4	1 2 3 4	1 2 3 4
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First		Middle		ADDRESS		Street/Ship/Unit/Division, etc.	
				City or FPO		State	
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SOC. SEC. NO.				DESIGNATOR		ASSIGNMENT NO.	
<input type="checkbox"/> USNR <input type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE OTHER (Specify) _____				DATE MAILED			

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